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ABSTRACT

Reports for the Council of Europe were the basis for this study of the educational needs of the 16-19 age group. The first of four sections, on sociological aspects, contains five chapters: socio-cultural characteristics of the 16-19 age group; quantitative aspects of education; equality of educational opportunity; and an overview of the sociological approach. Part Two, on the pedagogical aspects, contains four chapters: modern education; educational technology; technical and vocational education; and an overview. Part Three discusses general issues, considering thirteen questions which attempt to define widely-accepted objectives for this age group within a consistent educational philosophy. Part Four, appendices concerning the quantitative aspects of the sociological approach, indicates through tables: 1) the present duration of full-time compulsory schooling; 2) statistical breakdown of the growth in school enrollment ratios; 3) rate of transfer and of admission to higher education; 4) unemployment rates; 5) relative changes of upper and lower stratum youth studying in universities; and 6) the educational and cultural district. (KSM)

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THE EDUCATIONAL NEEDS OF THE 16 - 19 AGE GROUP

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THE EDUCATIONAL NEEDS OF THE 16 - 19 AGE GROUP

by
Henri JANNE
and
Lucien GÉMINARD

Council for Cultural Co-operation
COUNCIL OF EUROPE
Strasbourg
1973

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PREFACE

"The educational needs of the 16 to 19 age group" was chosen by the Seventh Conference of European Ministers of Education (Brussels, 8-10 June 1971) as the main theme for the Eighth Conference (Berne, 5-7 June 1973).

In accordance with the conference's previous practice the Secretariat, after consulting the Committee of Senior Officials, has commissioned a study on the main theme of the Berne Conference from two experts : Professor Henri Janne, former Belgian Minister of Education, currently President of the Collège Scientifique at the Brussels Free University Institute of Sociology, and Mr. Lucien Géminard, Inspector-General and Director of the French National Institute for Educational Research and Documentation in Paris.

The study, which reflects the personal views of its authors. It is based on country reports describing the situation with regard to the education of the agé group in question, prepared by Ministries of Education in the CCC member States according to criteria laid down by agreement between the Committee of Senior Officials and the Council of Europe's Committee for General and Technical Education.

The introduction and the discussion of general issues are the joint work of both authors. The sociological aspects have been dealt with by Professor Janne and the pedagogical aspects by Mr. Géminard.

Appendices concerning the quantitative aspects of the sociological study have been added by Professor Janne. Although most of the statistics may appear to be rather out of date, they are the latest relevant ones, published by the international organisations mentioned, available at the time of going to print. Quoted here for purposes of comparison, they do, however, allow one to get an idea of major trends.

THE PROBLEM OF VALUES

1. The idea of "needs" must not be allowed to conceal the fact that there is a continuing process of interaction between education and systems of values, values corresponding not only with the "images" of man and his society but also with life-styles and with the ways in which human relationships are carried on and the ways in which people act. What are in question therefore are *end values* and *action values*. In complex societies these values are undergoing a change produced by the conflict between tradition and new aspirations and needs.

2. The perennial problem which is to be discerned time and again beneath discussions on the objectives and ends of education is this one of values.

(i) Should fundamental (human) values be formulated and projected into the future as ends to be achieved ? Are we entitled to do this ?

(ii) If the answer is yes, then what values are to be set up as educational aims at various levels ?

Discussion is seldom conducted overtly in these terms. One is all too well aware that, in these changing times, this could lead to clashes without possibility of compromise.

3. Nevertheless these questions are central to the problems. The answers to them will give practical meaning to large woolly expressions like *learning to learn, learning to be* and *learning to become*.

The introduction to the report of the international commission on the development of education set up by UNESCO early in 1971 raises these questions of "values" by implication in the remarks which follow :

(i) "Modern democratic education requires that *man's natural desire to learn* should be stimulated and that at the same time the automatic diploma-job link-up, which the economy of many (even developed) countries will not always be able to guarantee, should be disengaged" (page XXXIII of French text).

(ii) "The educational system of the developed countries still is, at any rate in a number of cases, at once *pre-technological in regard to the education itself* and *élitist in regard to its social recruiting* (higher education being, of course, in question here)" (page XXXI of French text).

(iii) "The development of mass media gives the political and economic authorities *extraordinarily effective means for conditioning the individual*, whether in his aspect as consumer or in his aspect as citizen" (page XXVIII of French text).

(iv) "The new man must be able to grasp the overall consequences of individual behaviour, and *to decide upon the priorities and adopt the solidarities* which will determine the species' fate" (page XXIX of French text).

The foregoing quotations show that ideas of education are at any rate inseparable from *action values*, which are more directly linked with the technical and social development of societies, and hence with their "needs", than *end values*.

End values depend a great deal more upon the traditions and specific cultural features of different nations produced by their history. In this diversity lies Europe's wealth, and it would be a pity to try to replace it with something more uniform.

It will not be possible, on the other hand, for the two reports to disregard *action values* ; it is in them that the sociological and educational solutions which the European Ministers of Education are trying to work out together are likely to be found, and of their very nature they tend to have more similarities with one another, than the other values have, in the various national educational systems.

4. Of the main groups of factors responsible for making the problem of values a current educational issue, five may be mentioned :

(i) The development of the mass media, in particular televised news programmes seen by the entire public, of every age and social class ;

(ii) The rapid strides made by knowledge, the "scientific explosion" and its social consequences ;

(iii) The change in life-style produced by the general rise in the standard of living in the countries of Europe and by greater uniformity in the consumption of goods and services by different classes—with one exception, an exception which represents a key problem in contemporary education : *modes of consumption which have become specific to the rising generation in the 16 to 19 age group*, which result in the creation of a sub-culture and in solidarity of peer groups ;

(iv) The development of social values which no longer always tally with the values cherished by the parents in the family unit, or with those retained by the schools and teachers in the present educational system ; these family values and school values in their turn being out of step with one another ;

(v) This follows from what has just been said : ideas about the overall organisation of "teaching-education" are changing and diverging.

These developments, which began in the nineteenth century, are continuing and increasing because the need to alter educational ideas is fairly widely felt, particularly in view of the growing importance of non-classroom informal information and education.

For teachers who are carrying on with and extending the work of men like Dewey and Freinet, "values" are to be created in action, here and now. [1]

5. Thus, despite the fact that any shake-up of educational systems at the present time—a shaking up affecting the 16 to 19 age group as well as the others—means that "educational philosophy" is again called in question and that there is doubt as to the feasibility or otherwise, the legitimacy or otherwise, of fixing in advance fundamental end values for the generations that are now being trained ; it would seem that these values ought only to be taken into account indirectly in the two reports. Unlike them, *action values* are inseparable from the problem of needs.

Furthermore, stability is not a thing that can be looked for, from now on, when any problem to do with education is considered. European society is involved in a process of change, with all the dangers and possible rewards that sweeping and rapid change brings with it. What has to be sought, therefore, is not the mirage of restoring stability, but dynamic equilibria.

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1. Observation by L. Legrand, who criticises these assertions in *Une méthode active pour l'école d'aujourd'hui*. Geneva, Delachaux et Niestlé, 1971.

PART ONE

THE SOCIOLOGICAL ASPECTS OF THE 16 TO 19 AGE GROUP

by

HENRI JANNE

CHAPTER I

SOCIO-CULTURAL CHARACTERISTICS OF THE 16 TO 19 AGE GROUP

1. *Sociological significance of this age group*

It would be easier to determine the sociological significance of the 16 to 19 age group if it had a psychological identity clearly defined in scientific terms. Despite advances in genetic psychology [1] and differential psychology, [2] however, very little seems to be known as yet, scientifically speaking, about this phase of human development. In particular, the intellectual characteristics have not been clearly established, beyond the discovery that this is the period during which the brain more or less masters the process of abstract reasoning.

The dividing lines between childhood, adolescence and adulthood are still rather hazy, in respect both of time and of definitions. No really objective definition has been given, for example, of the notion of "maturity".

It is the task of sociology to attempt to convey an awareness of the social realities which affect this group. [3]

All industrialised societies are, in fact, faced with a crisis of youth. It has been said that present-day society is "suffering from its young people's growing pains". This is far too general a subject to examine in depth here. Our present task is to investigate only those aspects of the overall youth crisis which are peculiar to the 16 to 19 age group.

Sociological definitions of this age group focus on the function which this phase in an individual's life serves in society : this is the age at which the young person is initiated into membership of society as a whole and into the "roles" which that membership involves. These "roles" presuppose certain attitudes and patterns of behaviour, a given corpus of knowledge, and a command of material and social skills. This purpose is served by acculturation processes which depend in turn upon well-defined institutions.

Initiation is achieved in western societies within the framework of traditional institutions :

— the family (through *upbringing*)

— the school (through *education*)

— the group of young people of roughly the same age (through *leisure and "play"*) ; this is known in the English-speaking world as the "peer group". [4]

Assuming that these institutions *function in the normal way*, they also have to satisfy certain conditions :

— they must not "transmit" contradictory information ; each of them must faithfully reflect those values which are central to society (accordingly, society must be effectively rooted in a coherent, respected set of values) ;

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1. See the studies by J. Piaget, and in particular his reservations in "L'évolution intellectuelle entre l'adolescence et l'âge adulte" in the journal *Foneme*, May 1970, Milan.

2. M. Reuchlin : *La psychologie différentielle*, Paris, P.U.F., 1969.

3. Reference is made to the remarkable book by F. Hotyat : *Cours de psychologie de l'enfant et de l'adolescent* (9th edition, revised and augmented). Paris (Nathan), Brussels (Labor), 1972. Part One is based on the hypothesis of different genetic phases : 0-3 years, 3 to 6-8 years, 6-8 to 12-14 years, and adolescents (12-14 to 15-17 years). The nearer the adolescent comes to this 17-year mark, the fewer and less distinct strictly psychological data become and the more sociology tends to take over ; moreover, it is always possible to say that a person has reached the "adult" state once he has reached his seventeenth birthday. Nevertheless, Hotyat's contribution is a valuable one (see the consolidated table on page 185). There follows a bibliography in which the following two titles are interesting for our present purposes : Bianca Zazzo : *Psychologie différentielle de l'adolescence*, Paris, P.U.F., 1966 and S. De Coster and F. Hotyat : *La sociologie de l'éducation*, Brussels, Institute of Sociology, 1970. Clearly, the scientific definition of the key phase between 15 and 19 years is still rather hazy.

4. We shall not be discussing the churches, since their function of social control and training is discharged mainly through these three groups, which they organise or influence to that end in various ways. Further, it should be pointed out that while each institution has its specific function, it also fulfils to a marginal—though no means negligible—extent, the functions of the other two, either at particular stages or all the time. Thus, the family "teaches" the child before he starts school and influences the instruction he receives at school, and also organises play activities ; the watching of television, whether educational or recreational, remains a family activity. Likewise, the school plays a part in "upbringing", particularly from the civic and community standpoints, and also organises play activities. The peer group participates in instruction and education, though less consciously.

— they must "transmit" *real* know'edge, that is to say, knowledge that corresponds to actual experience in the social situation (the process is destroyed by any undue discrepancy) ;

— nevertheless, they must train young people in such a way that they have a certain margin in which to exercise responsible options, since an ability to adapt to sets of unforeseen circumstances, a capacity for innovation, creation and initiative, and personal "wisdom" are essential to *any* social system ; without these abilities human societies would have to remain static in order to survive, and would collapse if any change took place in their surroundings.

2. *The elements in the crisis of the 16 to 19 age group*

While it is appropriate to analyse these elements in the context of the three educative institutions (family, school, peer group), it must not be forgotten that this report is intended for a conference of European Ministers of Education, who will be anxious to confine their discussion to problems of concern to them, namely those of education for the age group in question.

1. *Family*

In the West the patriarchal family, and subsequently the semi-patriarchal family (of a type still clearly in evidence in the 19th century), was founded on the hierarchical authority of the "father" and on respect for one's elders. The position of the child was one of total subordination.

The family unit has now been reduced to the married couple and their children below the age of majority, but the tradition of paternal authority has survived both in law and in practice. In principle, children are still subordinate to their father. While their subordination is less pronounced than it used to be in internal family relationships, children are materially much more dependent on their father than they were in the past, when they worked for a living from an early age.

The "nuclear" family, as the sociologists call it, has lost a great many of the functions performed by the patriarchal and semi-patriarchal family, and even by the larger families of past generations... Because of changes in life-style, smaller dwellings, and the growth of old-age pensions and old peoples' homes, older relatives who have reached retirement tend no longer to live as part of the family. Similarly, education is left to the schools, and young people spend part of their spare time watching television, which is to some extent taking over the role of the parents as purveyors of information, and at the same time making them less important as such. Indeed, the educational function of the family is being discharged less and less consistently and continuously. Parents are engaged elsewhere, either at work or on leisure pursuits. They have other claims on their attention (particularly television), and the children are studying or otherwise occupied away from the home.

In the patriarchal family, education and upbringing meant treating young people as "apprentices" requiring preparation for various types of work. In the present-day urban world of industry, the services and bureaucracy, fathers (and more and more mothers, too) go out to work, while more children are studying for longer periods and are thus completely cut off from the practical working environment. Factories, offices and service centres are remote, mysterious places. No doubt young people know something about them, but they lack experience and contact—at all events real, lasting and personal contact. Young people are cut off from work throughout the period of their studies, which has been growing consistently longer as a result either of legal compulsion or of spontaneous decisions on the part of the family. Why then should we be surprised that young people are reluctant or alarmed at the prospect of entering the unknown, and consequently formidable, world of work ? Furthermore, the family unintentionally provides them only with negative information about work, through the parents' anxiety about their own jobs and the worrying, nagging exhortation to "succeed" in a career and to do well at school in preparation for it. But it does not take young people long to discover that life at school is very different from life outside. Neither families nor schools themselves help young people enough to solve the problem, which is a fundamental one for each individual, of what job to choose on leaving. [1] Any interference sounds like coercion, and parental anxiety makes young people anxious too.

Kidd reports reactions of this kind, together with the results of surveys which show that young people are increasingly losing interest in work, whether they are at the stage of deciding on and preparing for a career or have already embarked upon a given occupation. The role of worker is less attractive to them than that of consumer, to which they have been conditioned by seductive

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1. We have drawn upon the study by A.E. Kidd : ***A critical review and assessment of recent research and other writing concerning youth in modern industrial society — with special reference to education*** (report prepared in the context of the Plan Education 2000, promoted by the European Cultural Foundation).

advertising. While enjoying independence—more apparent than real—in the "closed" environment of their leisure pursuits, they will react to the rationalism of the huge modern enterprises, for which they will work under bureaucratic supervision, by an uncouth refusal to co-operate, or by apathy stoked by a feeling of impotence.

While children who continue to study (and there are more and more of them) are economically dependent on their families, the general rise in living standards has resulted in parents giving them increasing amounts of pocket money with greater and greater regularity. [1]

Young people—especially those in the 16 to 19 age group—have turned into an economically important body of consumers. [2] Manufacturers and commercial enterprises have quite naturally been keen to exploit this potential market. They have done so by creating a fashion in clothes, hairstyles, music, leisure centres and clubs, films, drinks, weekly and monthly magazines, modes of transport, sports equipment etc. exclusively—or at least mainly—for the use of young people. [3] In this way they have helped to create a specific life-style and have encouraged the emergence of a *sub-culture* of youth. The end-result has been to strengthen the peer groups—which are particularly important between the ages of 16 and 19, after which they tend to break up [4]—so that young people spend their spare time *with each other, away from their families and apart from adults in general.* The influence of the family is practically eliminated when it comes to the important question of how to spend one's spare time, while the influence of the peer groups has grown. It is here that popularity and success are important, and it is here that the "models" made fashionable by the cult of pop idols are to be found.

Life in these surroundings has an attraction which it lacks both in the family circle and at school ; it is regarded as a release from dependence on the family and on the school. Thus a self-contained "environment" is created, alive though artificial, unlike society as a whole in the values that it adopts ; here, too, are the places where the alternative society takes root.

The sub-culture of the young has posed the problem of sex in new terms, at an age when it becomes acute because it is bound up with the individual's search for his own identity. While the problem of sex education has been tackled in schools, the needs of young people and the questions they ask are still far from being generally satisfied and answered. As to the family, its position is ambiguous, for adults are still held fast by traditional taboos. They are also worried about the consequences of sexual liberation, and also increasingly aware of the existence of this problem. So the schools do not have the answer, nor does the family. Consequently, young people solve their personal problems in their own environment, moving yet a little further away from the two fundamental educational institutions, for which the peer group becomes a substitute. [5]

Let us now turn to the problem of the mass media and the ways in which they affect the 16 to 19 age group. Young people first become acquainted with them in the form of the family television set, from whose screen they obtain information about the world outside. Their apparent maturity is in evidence earlier than in the past. The "values" of the consumer society conveyed by the television screen compete with the traditional models impressed upon their parents in their youth. Faced with a changing world, however, parents themselves come to doubt the validity of these traditional values and are unable to defend them against the new standards which the children adopt in discussions with other members of the family. For the most part, these new standards originate in the consumer sub-culture of the young ; they are taken from the peer group, backed up by television programmes and reinforced by all-pervading advertising.

Parents suffer from the contradiction between their own standards and reality. They speak of the "free world", but it includes coercive systems of government ; they speak of "democracy", but there is such a thing as manipulation by the "machines" ; they speak of equality, but there is misery and blatant discrimination ; human solidarity contrasts with the desirability of competition the duty to assert oneself and to be sincere contrasts with the necessary caution and conformity ; permissibility in matters of sex is all very well, but certain things are nevertheless banned ; a sense

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1. A point to note is that the radical drop in infant mortality, greater medical skill, the improvement of living standards and the considerable fall in the number children born to each couple have made children "valuable". The loss of a child has become a tragedy, whereas the loss of several was an accepted part of life for parents in societies of the past... As a result, the emotional bond between parents and their children is stronger, and parents find it difficult to refuse the things which children say will make them happy. This fact of being both dependent and "valuable" has meant that children have increasing freedom, though it is constantly resisted and measured by the anxiety of their elders... Pocket money is one aspect of this unending debate.

2. A. Abrams : *The Teenage Consumer*, (Kidd's note 37).

3. The underground trade in drugs has also been able to develop on this basis.

4. By the combined effect of marriage, a job and the arrival of children.

5. cf. P. Goodman : *Compulsory miseducation*. Harmondsworth, Penguin, 1971.

of civic duty does not clash with tax evasion ; Christian morality is not incompatible with selfishness and indifference to others. Contradictions abound in a changing world, whereas education can succeed only against a background of certainty. What shocks young people most is this feeling that something is "phoney".

If this is so, it is because the family bears the stamp of the world around it ; the outside world is unstable, changeable, ridden with conflict, uncertain what future to expect, and so unsure of the principles, values and attitudes which should underlie the acculturation, education and initiation of the young. The guidelines offered by tradition are scarcely more reliable, for it is out of step, objectively speaking—and more so in some fields than others—with actual experience, and is consequently questioned even by adults themselves. This incongruity brushes off on to the young, who are worried and highly sensitive to any form of dissent.

2. *School*

We shall deal here only with those characteristics of the school system which are relevant to higher secondary education and which reflect the crisis in education as seen by the young.

In this connection, the remarkable *symposium* held at *Pont-à-Mousson* (France) in January 1972 on the "factors in primary and secondary education which determine the effectiveness of further education in later life" emphasised the following themes,[1] of particular relevance to secondary education, which were discussed by the three working parties :

"Establishments were seen, experienced and founded as :

— places cut off from life and the environment ;

— silent places, stifling any inclination for personal expression and hostile to communication between persons ;

— discriminatory places, favouring the 'noble' branches of learning ;

— places characterised by conformism, reproducing traditional patterns and values and opposed to creativity and any expression of dissenting opinion ;

— irresponsible places, excluding any form of co-operative control over common resources ;

— places demanding passivity and submission, where pupils have no say as regards the subject matter, methods, duration or organisation of studies ;

— lastly, places associated with repeated failure at the end of a guidance process invariably amounting to rejection.

At the other extreme, the aims of the school, at all stages, were defined as follows : to produce independent and responsible human beings who would be creative and responsive to social life." [2]

To this we may add some ideas put forward by A.D.C. Peterson in some introductory remarks to the symposium : "In reality, young people were indifferent to anything they were taught that could be justified only by reference to their later life (vocational, civic or family). They expected school to help them live their lives in the present..."

Young people in the various countries serving *apprenticeships*, accompanied by some measure of general training, feel that they are exploited and dependent, in spite of the controls and safeguards which exist everywhere. Generally speaking, they feel alienated from society as a whole.

All these features of the educational system are aggravated by the constant growth of *informal* education, the acquisition of knowledge and culture outside the school. This gives young people the *impression* of being self-taught and achieving maturity outside the classroom, with the result that the value of schooling falls in their eyes. School is regarded as a self-contained environment cut off from social and technical reality—as something which does not help them to live in the present.

3. *Peer groups*

The functional losses suffered by the family and the school, in conjunction with the creation, for economic ends, of a specific leisure environment for young people—entry into which normally takes places at 15 or 16 years of age—have had the effect of giving greater and greater prominence to the peer groups which take root and blossom in the sub-culture produced by this environment.

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1. See Council of Europe : Document CCC/EGT (72) [illegible] April 1972 (roneoed), page 35.

2. Quite clearly, it is very seldom that *all* the criticisms set out above are valid for a given type of education, and there are *certain institutions* which do not call for any such criticism. Nevertheless, the faults listed here continue to be an important part of school life, *especially at the upper secondary level*. The inherent inertia of the educational system is largely to blame for this.

Of course, we must not exaggerate the uniformity of this sub-culture : the differences between the student world, the "grammar school" world, the world of young people employed in the tertiary sector, the world of young manual workers and the rural world, are differentiated by more than mere nuances. Each of these is a mixture of the general characteristics of the "youth" sub-culture and features peculiar to the social backgrounds from which the young people come... But this does not affect the basic phenomenon of a young environment, with specific cultural features, "cut off" from the adult world. It is here that young people are able and anxious to express themselves. They are highly aware of the achievements approved of by those around them, and willing to conform to the strict conventions which they impose. *This environment is an "educational" reality, and one of the factors which must be taken into account in any educational and cultural policy.* It is here that the values which influence—and influence effectively indeed—young people's attitudes and behaviour are evolved and adapted. This is the breeding ground for demand and protest, especially in respect of school and family life.

Any attempt to paint a total picture of the mentality of young people in the 15 to 19 year age group is hazardous. Indeed, it is probably doomed to failure from the start. However, the cautious observer will note an anxiety sheltering behind the mask of arrogance and sometimes of aggressiveness, a marked tendency to "protest", to question everything, without any experience of reality (anyone who argues that this experience is necessary is accused of making a mystery of things). Young people are distrustful of society and adults in general, and extremely sharp in at once seizing on contradictions and anything phoney. They reject rational argument and refuse to accept today's over-organised world. They denounce the operations of the "machine" and are therefore politically apathetic, or else express themselves by opposition—all-out violent opposition—to the "system" (though this is true only of a minority). They all repudiate adult taboos, particularly where sex and work are concerned. As regards work, some of them refuse to accept a life based on success in a career and the competition it entails. They dismiss all forms of meritocracy, whose criteria they reject. Others resign themselves to it, though with no conviction : they are prepared to take refuge in a life of social ease and family affluence. They "earn" their happiness, while displaying a cynical "toughness".

Generally speaking, young people criticise society and schools for neglecting emotion and creativity and for curbing those who step too far out of line.

3. *Conclusions*

In spite of its inescapably subjective character and the fact that our reference data are inevitably incomplete, we cannot but attempt to outline a sociological profile of young people between 15 and 19 years, relative to the three educational environments (family, school, peer group). *Any reform of the educational system which claimed to be based only on "school" data would be in danger of dealing with the symptoms and not with the aetiology of the disease ; that must be looked for along the—admittedly vague—lines we have pursued so far.*

To sum up, no approach to the problem of education for the 16 to 19 age group can afford to overlook a number of aspects which appear to be established beyond doubt :

— *The family constitutes a key factor to which teaching must be closely related.* The school must help the family to redefine its educational role as a counterpart to formal teaching.

— *Work and preparation for it must be made a real, practical part of the educational process.* Only authentic, productive work (i.e. the reality of a commercial concern or a public service) provides a suitable background for this aspect of training ; this is an example of what Bertrand Schwartz means by "educational resources". This suggests that *apprenticeship schemes* should be accompanied by a sound general training (these schemes are second choices nowadays). [1]

— One of the causes of anxiety in the 16 to 19 age group is *inadequate guidance and counselling ;* each individual should be "placed", in accordance with his aspirations and abilities, in a course of study leading to an appropriate qualification (this requires a knowledge of the nature of different occupations and career openings).

— *The sub-culture of young people and their leisure activities must not be surrendered to economic exploitation.* This is one of the focal points of cultural advancement, and calls for a policy pursued in close conjunction with that of education. *Informal education becomes an essential factor* and should be combined with the human and material resources available to *formal education.*

— *The school must no longer be "cut off"*, as a self-contained entity, from the social context, all of whose resources must be mobilised for the teaching of young people *(the "open" school).*

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1. This proposal should be compared with the remarkable section in the Netherlands report entitled *Participation education.*

— *The education of the 16 to 19 age group needs to be thought out afresh, not in traditional terms as the final phase of school life, but rather as the first phase of permanent education.* The principles which underlie the latter are assisted self-tuition and responsibility ; and the years between 16 and 19 appear to be the best age at which to make effective preparation for them.

— *"Deschooling", in the sense of an end to the classroom system, appears to be essential from the age of 15 or 16 :* education for the masses cannot be provided, nor individual aspirations and the needs of society satisfied—at least, not without paying too high a psychological, cultural and social price—by this traditional method which was devised in a different social context. *We are faced here with a real change.*

— Finally, the training given to young people between 16 and 19 years of age must constitute a *life-style which will help them to live in the present and not be seen as a kind of preparation for the future. The training period must be satisfying in itself,* whereas school today is seen by young people as an alien intrusion on their time. In view of the specific features of the age group in question and its wish to be treated, not as a group of schoolchildren but as adults, we must *consider* how it might be possible to endow higher secondary establishments with a characteristic identity, particularly if the higher secondary level is regarded as the first phase in permanent education. [1]

However that may be, there can be no question of a sudden switch from a "condemned" system, but one which has some good points and an established structure and which works tolerably well, to a "destructuration" and a state of anarchy, which would have even more damaging consequences... This is the educational challenge of our age.

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1. A passage from the United Kingdom report is relevant here (page 5) : "There are, however, many young people who have had enough of school by the time they reach the age of 16. They feel that they are no longer children but young adults and the atmosphere of school—especially where the school contains 11 and 12 year-olds—is no longer acceptable to them. Therefore they will either leave the educational system altogether or else transfer to institutions which offer a more adult atmosphere and a greater degree of personal freedom. Investigations by H.M. Inspectorates have produced much evidence to show that there are many thousands of young people taking full-time school level courses in *colleges of further education* who would otherwise have gone to work and either appeared as part-time students or not at all." The remarkable success of the colleges of further education suggests a comparison with an American institution, albeit a very different one—the *junior college.*

CHAPTER II

QUANTITATIVE ASPECTS OF EDUCATION FOR THE 16 TO 19 AGE GROUP

I. *General comments*

The growth in the numbers of upper secondary pupils is a fundamental sociological feature of the expansion of the educational system in the industrialised countries. It is fostered by the trend towards the extension of the period of compulsory schooling taking practically all young people up to the level in question ; but spontaneous demand is, of course, the immediate factor, and it is further stimulated by the facilities for study and various forms of assistance that are available. This growth rate does, in fact, level off in the progress from the 15 to 16 age group to the 18 to 19 age group ; taken as a whole, however, it creates the prerequisites for an increasing influx of pupils into higher education.

The *large numbers* of people now following courses of education beyond the age of compulsory schooling, and their increasingly pronounced *socio-cultural diversity*, [1] are crucial sociological factors in the crisis of adjustment now affecting upper secondary education. This educational level used to be available, by and large, only to a *restricted* and economically and culturally *homogeneous* social group, whose offspring were trained in the "upper class" tradition, with a bias towards the professions, executive jobs in industry and commerce and senior administrative and political posts. Both the objectives and the distinctive features of the school population have radically changed since the last war, though training up to positions of authority remains an essential function of any educational system, and if this function is to be served, then a process either of maintenance of privilege or of meritocratic selection is unavoidable. The present situation comprises both aspects in different proportions, and appears to fall between two stools.

2. *Present duration of compulsory schooling*

This factor is illustrated by an excellent table taken from an as yet unpublished work by Raymond Poignant. [2] It shows :

— that compulsory schooling lasts for between 8 and 10 years in Europe ;

— that all 14-year-olds are subject to compulsory schooling ;

— that compulsory schooling starts at the age of 5, 6 or 7 and ends after the 14th, 15th or 16th year (in Ireland children may start at primary school from the age of 4) ;

— that the United Kingdom is considering an 11-year period of compulsory schooling (an extension of one year, with the school-leaving age raised to 16) ;

— that the Netherlands has introduced a new type of part-time compulsory schooling.

3. *The population factor*

The first question that comes to mind is the following : does the 16 to 19 age group show a population increase which would largely account for the expansion in voluntary enrolments following the compulsory period ?

The indices for population growth in this age group and for the growth of enrolments show that social demand is by far the more important of these two factors. [3]

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1. And the different degrees of ability in mastering the *current* types of academic activity.

2. This is an updated and geographically enlarged version of the work by Raymond Poignant published in 1965 by the Institut pédagogique national (Paris) : *L'enseignement dans les pays du Marché Commun* (basic data for the "Plan Education 2000", currently being prepared by the European Cultural Foundation in Amsterdam). See Appendix I, Table 1.

3. *Educational policies for the 1970s* — General report (Conference on policies for educational growth, Paris, June 1970), OECD, 1971. Tables II and III, pages 54-55.

4. *Growth of enrolment rates in this age group*

In Belgium, Denmark, France, Norway, the Netherlands and Sweden the enrolment rate is between 60 % and 80 %; it is between 40 % and 60 % in Austria and Yugoslavia, and below 40 % in the other countries. It is noteworthy that the rate exceeds 80 % in Canada, Japan and the United States. The reader is referred in this connection to the statistical breakdown given in Appendix II. The following figures for Western Europe are worth noting (see particularly Table 4 in that appendix) :

— the enrolment rate for 17-year-olds for the period 1952-53 is *less than half, or even less than one third, of that for 14 to 15 year-olds ;*

— the rate of increase in enrolments in 1967 or thereabouts was much greater for 17-year-olds than for the 14 to 15 age group, taking the enrolment rate to 17.3 % in the United Kingdom (the lowest rate) and to 46.7 % [1] in Belgium (the highest rate). *The rate for 17-year-olds is then about half that for 14 to 15 year-olds* (except in the United Kingdom, where it is in the region of a *quarter).* There are, therefore, considerable differences between one country and another, but the overall pattern is similar.

5. *Rise in the number obtaining a secondary school leaving certificate*

Now that we know the trends in enrolment rates for the age group in question, we can go on to consider what the end-product or output of this education is. It is expressed in terms of the number of pupils holding secondary school leaving certificates. *These certificate holders may be aged between 17 and 21.*

We have a table showing the percentage of certificate holders in the age group considered (17 to 18 or 19, 18 to 20 and 19 to 21, depending on the country) for 1950, 1955, 1960 and 1965, together with the average rates of increase for each five-year period. [2]

The striking feature is the agreement between the 1965 percentages for England, the Netherlands, the Scandinavian countries, Italy and France (in the region of 18 %). There is also a clearly marked common tendency, shared by the Federal Republic of Germany, Austria, Switzerland [3] and Spain, towards the lowest rates (vocational courses and apprenticeships have been particularly emphasised in the first three of these countries and are not taken into account here). The vastly higher rates for the United States (75.7 %), Canada (71.6 %) and Japan (50.5 %) should be noted.

6. *Rates of transfer to higher education*

We must now consider to what extent the certificates awarded at the end of long full-time secondary education mark the end of study altogether or lead on to higher education. For this purpose we shall refer to a table showing the percentage of secondary school leavers who went on to higher education in one of its various forms, in four periods extending from 1950 to 1966. [4]

In addition to the wastage of certificate holders relative to the numbers of pupils aged between 17 and 21 enrolled in the final year, there is also wastage, from the point of view of continued regular full-time study, at the time when these pupils transfer to higher education, either as a result of a selection procedure or because the certificate holders opt for other alternatives (usually an occupation).

The 1964-66 figures for the most highly industrialised European countries and for higher education in general show that the Netherlands has the lowest rate (69 %) and Switzerland the highest (75-90 %), while the rate in the United States is no higher than 53.6 %. Naturally enough, there is a tendency for a high enrolment level (three quarters of the age group in the United States) to lead to a relatively low rate of transfer, while the number in absolute terms is very high. Thus in the United States, 76 % of the 19-year age group hold certificates, and as

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1. 47 % according to the Belgian report.

2. *The development of higher education 1950-67* — Analytical report, OECD, 1971, Table III - 3, page 108.

3. The index of secondary school leaving certificate holders increased from 100 in 1950 to 245 in 1970 — a fairly rapid rate of growth.

4. *The development of higher education,* op. cit., Table III - 7, page 108 (see Appendix III of this report)

54 % of these go on to higher education, *the transfer figures apply to 41 % of the age group.* In Italy, also in 1965, 18 % of the 18 to 20 age group hold certificates, and 80.5 % of these go on to higher education—only 15 % of the age group.

In the industrialised countries, the higher education enrolment rates for *the age group concerned* vary from 11.7 % (Austria) to 21.8 % (Belgium), Luxembourg being a special case. [1]

7. *Percentage of this age group not receiving full-time education*

At this point, we need to ask ourselves how many young people between 16 and 19 years of age are no longer receiving full-time education.

This question is answered in a table drawn up by the OECD Secretariat. [2]

15 years and over	France	United Kingdom	Sweden	United States
	1967	1969	1969	1969
15 years	28	17	6	3
16 years	45	59	30	4
17 years	60	75	46	16
18 years	72	84	60	39

The authors observe that European States still have a long way to go before full enrolment is achieved at the higher secondary level ; one in every two young people in Sweden and France, and three in every four in the United Kingdom, now leave school before their 16th birthday.

8. *The general distribution of 16 to 19 year-olds (according to the country reports received)*

The above figures prompt the question of how young people are distributed over the various channels open to them in the education system, and how many of them receive *no education at all* after the period of compulsory schooling.

Taking the courses defined as "long" in the reports, we find the following rates : 5.2 % for Spain, 9.51 % for Austria (though more than 60 % of the age group receive technical and commercial training at a wide variety of levels and in a wide variety of fields), 18 % for Switzerland, 19.4 % for the United Kingdom, 20 % for Denmark (to which must also be added schools preparing pupils for the "Higher Preparatory Examination"), and 20 % for Belgium. The figure for France, Sweden and Finland is 30 %, and that for Norway 32 %. The Netherlands should also be included in this category, judging from the statistical tables given at the end of the report.

The percentages of the age group stating that they have received *no* instruction following the period of compulsory education, or which can be deduced by a process of subtraction, are highly interesting. The situation is as follows :

Sweden :	more than 10 %
Switzerland :	22 %
Austria :	23 %
Denmark :	23 %
Finland :	25 %
Norway :	25 %
Belgium :	29 % in 1966-67
	33 % in 1970-71
Luxembourg :	approximately 37 %
United Kingdom :	40 %
Spain :	75 %

1. *The development of higher education*, op. cit., Table II-7, page 86.
2. Doc. DAS/EID/72/29.

It must of course be borne in mind (see Appendix I) that longer periods of compulsory schooling considerably affect the percentages given (this is so in the case of the United Kingdom). It should also be remembered that the majority of the industrialised countries offer various kinds of further education [1] and that training given by firms may play an important part, though its value will vary greatly from country to country.

The data available indicate that in the most highly industrialised countries occupational, technical and commercial training (with different and more or less extensive "apprenticeship" and general training schemes) *caters for some 40 % to 60 % of the 16 to 19 age group* (18 % in Spain).

One further point is unemployment as it affects this age group... While we have not been in a position to investigate this important problem, we felt it would be interesting to give a tentative survey of the question on the basis of some Belgian data, and this is given in the Appendix. [2]

9. *Conclusions*

A few preliminary conclusions can be drawn from the quantitative aspects of education for the 16 to 19 age group.

There is a 25 % variation (from 8 to 10 years) between countries in the duration of the period of compulsory schooling ; the school-leaving age is set at 14, 15 or 16 years. From this it is immediately apparent that the problem of raising the school-leaving age is not the same in every country. However, the problem is alleviated by the high rates of voluntary enrolment in the years immediately preceding and following the compulsory period. But there are certain marked national differences, which again bring the problem down from the general to the particular.

From all this it is apparent that a *possible extension could be made either at the beginning or at the end of the period of compulsory schooling, or both.*

It could be made at pre-primary level, with a gradual downward progression to 3 years. The view that the early years, up to the age of 6, are decisive for the development of intelligence, self-expression and social communication is an argument in favour of giving priority to the pre-primary level if the period of schooling is to be extended. However, there is a high rate of voluntary enrolment at this level, and the only limitations in fact appear to be those set by the facilities available.

On the other hand, the question arises whether priority should not be given to adult education, in view of the needs and requirements in this field, *with a view to promoting permanent education.* If so, there would be a strong argument (the need to prepare young people for this permanent education) for "deschooling" the 16 to 19 age group, as suggested in the *conclusions to Chapter I,* thus making it *the first stage of permanent education...* Deschooling would not mean the elimination of collective educational establishments, but it would mean abandoning the stereotyped classroom system and the predominance of "teaching" over "learning"... Permanent education along these lines might conceivably involve compulsory *part-time* instruction for this age group.

At all events, we are as yet very far from a situation in which the whole age group in question is receiving education. The statistics we have assembled indicate that :

(i) while the 1967 enrolment rates for the 14 to 15 age group almost invariably exceed 50 %, and even 80 % in the highly industrialised countries, the growth rate (though rapid in the following years) *falls off gradually* to a point where, at the age of 18 to 19 years, enrolment rates are down to 20 % to 30 % and even lower ;

(ii) social demand has had a far more pronounced effect on growth rates than the population factor—though the latter is important—except in Germany and Austria.

Whatever view one may take, these statistics suggest that extension to the period of compulsory schooling should only be introduced very gradually, otherwise insoluble problems of staffing and equipment, for example, might arise. [3]

If part-time compulsory education is not introduced, would it not be better to stimulate spontaneous demand gradually by offering a wide variety of choice ? The point to remember, how-

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1. These are not *regular* courses on a reduced time-scale, but courses aimed at social advancement as mentioned in certain reports. (See particularly the French report, page 5.)

2. See Appendix IV, Tables 4, 5 and 6.

3. Here again, a solution worth considering would be compulsory *part-time* education backed up by *successive increases* in the number of *hours per week* devoted to study, achieved by *raising the age of compulsory attendance.*

ever, is that a system of compulsory *part-time* education up to a minimum standard would have the advantage of initiating the students in this age group into permanent education.

An idea discussed in Part V of the Netherlands report is worth noting here : "The regulations governing compulsory part-time education (as from 1 August 1971, to be introduced in phases) *are of a temporary nature.* When the concept of *participation education* as full-time education has been fully realised (it is intended to achieve this *by 1980),* a completely new Compulsory Education Act will have to be introduced." The Netherlands concept of "participation" is defined as follows : "a type of education in which the student is already *participating, as a student, in working life,* an activity which contributes to his personal and social development, and on the other hand is attending day school for part of his time".

While the end-product of the upper secondary level—namely pupils holding secondary school leaving certificates—tends to represent some 18 % of the age group (roughly 17 to 19 years) in the most highly industrialised countries, it must be pointed out that the corresponding figure is over 75 % in the United States and over 70 % in Canada... *So a great deal still has to be done for this age group in Europe.* However, this does not at all mean that traditional school-type teaching should serve as a model for a system of generalised education.

The figures we have indicate that the "transfer" from secondary education to higher education is an important crossroads for school leavers : the number of certificate holders who do not continue their studies ranges from an exceptional minimum of the order of 5 % to a figure *in the region of 50 %,* the largest "wastage" tending to affect the highest rates of certificate holders (enrolment rates for the final secondary year are in the region of 20 % to 30 % only). But enrolment rates in higher education range from 11.7 % to 21.8 % for this age group (roughly speaking from 18-19 years to 20-21 years). Clearly, following the rapid expansion in education during recent years, an enormous amount remains to be done for the 16 to 19 age group.

If we now go on to examine the types of education received by this age group, we find that the largest percentage (about 40 % to 60 %) in the industrialised countries embark upon a wide variety of technical, vocational and commercial courses of training which vary widely as regards duration and the emphasis laid on general education, practical training and genuinely vocational "apprenticeship". This is a "scholastic" or "semi-scholastic" area in which levels of effectiveness and objectives are very unequal. *But it also constitutes a rich source of experience and ideas, which is worth close investigation for our present purposes ; some of the types of training which it comprises are more akin to the first stage of permanent education than the final stage of school education—and this brings us back to the considerations set out above, by an alternative route to that of compulsory schooling.* As things stand at present, however, these courses of training are *on the whole* less substantial than the "long" full-time courses of general secondary education. In any event, if the school-leaving age were to be raised to 18, for example, by one means or another, the problem would arise of designing courses to meet needs based on a *wide variety of aptitudes and standards.*

It can be deduced from the country report that 10 % to 40 % of young people between 15 and 19 years of age in the industrialised States *no longer receive any education*—at least, not on a regular basis—once they have left school at the end of the compulsory period. Once again, this high percentage suggests that a system of compulsory part-time education might be worth considering for this age group. Thought would then have to be given to the need for *study time* to be legally deductible from working hours *without any loss of pay.*

CHAPTER III

EQUALITY OF EDUCATIONAL OPPORTUNITY IN THE 16 TO 19 AGE GROUP

1. *The general educational picture*

There is a wealth of studies and statistics on equality of opportunity in education... Unfortunately, the picture which is built up on the basis of these studies and statistics does not accurately reflect the present situation, since they are several years out of date. Furthermore, caution must be exercised in drawing comparisons between countries.

One of the most recent occasions on which this question was investigated was at the *Pont-à-Mousson Symposium* (January 1972) which covered the age group with which we are concerned. The theme of "equality of opportunity" was summed up in the following terms by the General Rapporteur, François Lebouteux : "We have examined, first and foremost, *how initial socio-cultural inequalities might be reduced as far as possible*. What can be done, at least, to prevent any widening of the initial gulf between those whose background is a help and those for whom it is a hindrance ? A close correlation is known to exist between the desire and capacity for further education and a whole series of factors, the most immediately influential being vocational qualification, the age of starting work and educational standard. However, it is also known that these factors appear, on closer scrutiny, to be directly associated with the parents' job and consequently their income, the number of children in the family, regional conditions etc., so that the young worker's background is usually a web of influences and events the earliest of which—dating back to well before his first schooldays—determine all the rest." [1]

Thus the Pont-à-Mousson Symposium confirmed earlier analyses of the overall problem : the school system must stop being a machine designed to "reproduce" the social structure by placing children (the "heirs") in jobs of the same type and level as those done by their fathers. That statement is an allusion to the titles of Bourdieu's and Passeron's essays on the subject.

We now turn to the *Conference on Policies for Educational Growth* held in Paris in June 1970 under the auspices of OECD. The general report *(Educational Policies for the 1970s)* [2] has the following to say on the subject of "Increased stress on equal opportunity" : [3]

— *"As could be expected, all social groups (whatever their definition) have benefited from the general increase in overall educational opportunity."*

— However, *"for most countries... social disparities have not changed substantially during the past twenty years."*

— While practically everyone now has *access* to the same schools and the same curricula, the results in terms of *educational achievement* seem to be closely bound up with the family and social environment. The discrimination which used to affect entry is now most in evidence in the degree of educational achievement.

— Even the ability to complete a course of study in the normal way does not result in *"equal occupational opportunity"*, which is also tied up with family and social environment. Further, *Background Report No. 11* to the conference [4] states that *"there is... no conclusive evidence that the observed increase in educational opportunities has a marked impact on income distribution"*.

Thus, while the Pont-à-Mousson Symposium confirmed the powerful influence of socio-cultural and family factors (particularly the occupation of the head of the family) on children's wishes and abilities in respect of further education, the Paris Conference has shown that structural progress is highly relative : the only absolute progress made—and it is by no means negligible—is that the larger numbers of young people enrolling for courses of education beyond the period of compulsory schooling *come from every social class (though no class has managed to increase its share significantly)*.

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1. See Council of Europe (roneoed document CCC/EGT (72) 1) : "Report on the symposium", Appendix I — Conclusions by François Lebouteux, "Methods of reducing initial inequality", page 48 et seq.

2. OECD, Paris, 1971, 157 pages.

3. Louis Emmerij (OECD Secretariat) : *Goals and targets of educational policy*, page 61 et seq. (section III).

4. *Education and distribution of income.*

A number of the conclusions drawn in *Background Report No. IV* to the Paris Conference, [1] which constitutes a remarkable scientific document, are worth restating here : [2]

"II. *Disparities in educational participation by socio-economic background* [3]

— Considerable social selection takes place below university level, *especially at secondary level.* This selection, which favours the upper and middle social classes, creates a differential in academic eligibility for higher education among socio-economic groups. Time trends reveal no tendency for this selection to decrease, *except in countries having exceptionally high primary and secondary school participation rates.*

— Upper-strata youth constitute a high proportion of students of higher education, and they are highly over-represented among students if comparison is made with the proportion of the male labour force from the same strata...

— *Youth from the middle social strata are also over-represented among students, although to a lesser degree than upper-strata youth, and young persons from the lower strata are under-represented.*

— *An increase in participation rates per 1 000 active males 45 to 54 years old was observed for all strata, but the gain for the lowest stratum was appreciably less than for the highest.* For example, in France, the number of students per 1 000 active males belonging to the same socio-economic category went from 338 in 1959 to 629 in 1964 for the upper strata and from 7 to 27 for the lower... This suggests that even if disparities seem to diminish in relative terms, they have increased in absolute terms. [4]

— Differences by socio-economic category with regard to participation in a particular academic discipline show a rather broad selection of academic fields among students of all strata but a definite tendency for students to study in a field that is closely related to their social background. For example, in medicine and law faculties one finds a much greater proportion of students emanating from the "professions" and "high-level executive positions" than in other faculties, whilst, *on the contrary, students of more modest origins find themselves grouped in greater numbers in the arts and sciences which, apart from teaching,* [5] *do not normally lead to high status professions."* [6]

2. *Equality of opportunity for the 16 to 19 age group*

At this point in our analysis it is as well to relate the data assembled and the conclusions reached as far as possible to the 16 to 19 age group.

(i) In order to eliminate disparities in access and options following the period of compulsory schooling, countries have devised financial assistance schemes to bring about a situation in which no one is unable to continue studying for purely financial reasons. *The country reports provide all the relevant information* on this, and it would be superfluous to quote them here. The means employed are free tuition, family allowances, scholarships, low-interest loans, assistance with travel and basic materials and subsidised board and lodging (even provided free in certain cases). *All this can and must be improved where failings and shortcomings are observed ; but these are administrative problems peculiar to the countries concerned.*

(ii) Assuming that inequality in respect of *access* becomes a thing of the past, it would appear that disparities in *educational achievement* are now having a selective effect related to the social background and socio-cultural environment of the pupil's family. This phenomenon has been actively at work throughout the period of compulsory schooling, as is evident everywhere from the relative academic backwardness and the generally more mediocre results achieved by pupils from

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1. *Group disparities in educational participation and achievement*, OECD, 1971, 318 pages.

2. pp. 13 and 14.

3. My italics in this quotation.

4. This shows how fallacious growth indices for particular social categories are. It might be thought that the index, in the case of France, was 4 for the lower category and only 2 for the upper category, whereas in fact the increase over five years, per 1 000 active males, is 291 students for the higher category and only 20 for the lower ! In absolute terms, however, the latter will account for a higher proportion of the enrolments in higher education than is suggested by the ratio of 27 to 629 (about 23), because of the percentage of the active population which this social category represents — about 40 % for the working class. Clearly, there are ambiguities here. The fact remains that the upper class has benefited proportionately more than the lower from the democratisation of education.

5. Nevertheless, it is pointed out that secondary school teachers enjoy far less prestige, and receive far lower salaries, than engineers, lawyers, executives and doctors.

6. These very sound conclusions are borne out by the table showing the effects of social category on young people's chances of studying at a university (see Appendix V).

the less favoured social strata. The bulk of those who embark upon short courses of intermediate vocational training or become apprentices, or enter unskilled employment or even fail to obtain employment at all, come from this category of pupil. It is characteristic of the compulsory school period that those parents who have had no more than primary schooling are still able—despi' advances in education and a longer period of study—to follow, check and stimulate the work of their children. But the work done at the secondary level is quite foreign to them, and they are no longer able to help. By contrast, parents who have received secondary or even higher education are able to give their children additional tuition. To this must be added that when difficulties arise, well-off families—even if not well qualified academically—can pay for private lessons which are beyond the reach of pupils from poorer families. More important still is the effect of the "hidden curriculum" : children from a cultured family background have an inherent advantage.

(iii) The more specific problem of the 16 to 19 age group is therefore, essentially, how to change the school into a system which will compensate for the socio-cultural factors generating disparities in educational achievement. This is the problem that really needs solving today, and it will be the focal point of the conclusions to this report.

We have seen that the present-day cause of inequality of opportunity is disparity of educational achievement. This is apparent from :

— the proportion of young people receiving *no education at all* beyond the period of compulsory schooling ;

— unemployment in the under-20 age group ;

— the number of *drop-outs ;*

— the number of pupils who, following compulsory education, *enrol for short additional courses or part-time courses or who enter apprenticeship.*

The chapter on quantitative aspects indicated, on the basis of the country reports, the extent to which the absence of training after the period of compulsory schooling was a problem. [1] A tentative picture of unemployment among the under-20s was also given, in connection with Belgium. [2]

As regards the influence of the factors at work on the choice of educational course, the *Swedish report* has the following to say : "A number of surveys in Sweden show, for example, how *these factors still have a decisive influence on the choice of education after compulsory schooling.* Investigations made in the *spring of 1969* [3] show that most of those from social group 1 [4] chose studies at upper secondary level which mainly prepare for university studies, while only a few per cent went to vocational school or directly into a job. Within social group 3, in which working-class children predominate, the largest group chose vocational school." [5] Many more examples could be quoted, but this would be superfluous.

The same psycho-sociological factors will be at work throughout secondary education, causing "stragglers" either to accept their fate or to become drop-outs.

The table reproduced below [6] showing pupil distribution in France by socio-occupational category for the first (1963-64) and fifth (1967-68) years of secondary education, and which appears

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1. See Chapter II, 8 : the general distribution according to country reports.
2. See Chapter II, 8, *in fine* : a survey of unemployment (Appendix IV).
3. My italics.
4. The highest of the three statistical groups from the occupational point of view.
5. English text, pages 1 and 2.
6. Distribution of pupils in the 1st and 5th years of secondary school by socio-professional category (percentages). •

Socio-professional category of the head of family	1st year 1963-64	5th year level 1967-68
Farmers	8.2	6.7
Farmworkers	2.8	1.8
Directors in industry and commerce	13.0	13.0
Liberal professions and top management	6.9	14.9
Middle management	10.8	13.1
Salaried staff	15.7	10.8
Manual workers	34.7	24.5
Service personnel	1.7	1.5
Other occupations	5.0	5.4
No occupation or unknown	1.7	8.3
Total	100.0	100.0
Corresponding enrolments	430 708	255 915

• OECD : *Group disparities in educational participation and achievement,* op. cit., Table 63.

to analyse the situation very clearly, is therefore perfectly easy to understand. Pupils whose parents are "professional" people or in top management positions have more than doubled their percentage (6.9 to 14.9), the position of middle management is considerably improved (10.8 to 13.1), and that of directors in industry and commerce is maintained (13 %). It is a remarkable fact that these three categories, which constitute a small minority of the active population, ultimately account for 41 % of the total pupil enrolment : the share of all the other groups is falling, especially that of the working class (from 34.7 % to 24.5 %), though they represent some 40 % of the active population. The drop-out rate in absolute terms is very high—174 793 (slightly more than 40 %).

An analysis of these figures shows that the factors which cause inequality of opportunity in the 16 to 19 age group are at work from the time when compulsory schooling ends, this being a time when decisive choices have to be made. Psycho-socio-cultural factors play an important part *from early childhood onwards* (before compulsory school), and these same factors give rise to *disparity of achievement* in the course of compulsory schooling, where the fact of repeating classes makes it more difficult for children from less well-off backgrounds to continue their studies subsequently. Even where these pupils do manage to keep up with their classmates, the discouraging mediocrity of their average academic results has the same effect.

3. *The sex factor*

A remarkable feature of the country reports is the fact that they pay little or no attention to the sex factor in the education of the 16 to 19 age group. On the one hand, this omission shows that it has become normal to make less and less distinction at this level between girls and boys, indicating that European thinking has become non-discriminatory in this respect. [1] On the other hand, failure to take this factor into account may mean that no attempt will be made to find specific remedies for those forms of discrimination which do persist.

The same difficulty arises here as for the rest of the problem : there is a welter of data, but they are not very recent, not readily comparable and not specifically related to the age group with which we are concerned.

The situation could, however, be summed up as follows : *at the level in question differences in enrolment rates between girls and boys become more pronounced as the educational level rises ; the main difference is that girls are channelled in less rewarding directions than boys and, in particular, lag markedly behind in higher education, especially at university.*

Girls conform to precisely the same patterns as boys as regards enrolment rates, but they are more seriously in arrears, and more markedly so, as the educational level rises.

There is no reason why economic, social and cultural factors (social background) and those family aspects which account for particular trends in respect of boys should not have the same effect where girls are concerned.

The reason why these effects are more pronounced in the case of girls has yet to be explained. In addition, over and above this general trend, it must be noted that the courses which girls follow offer poorer vocational prospects (compared with boys at the same level). Girls are less well represented on the technical side at the upper secondary level, while relatively greater numbers of them train as pre-primary and primary school teachers (these jobs are generally rather poorly paid and their social status is falling). [2]

These differences are explained by the prejudice from which women continue to suffer. It is rooted in *a certain conventional image of women* as having different intellectual and emotional qualities from men, and in the role which society "naturally" assigns to them. What is at work here is the very definition of women's status in society. The traditional image of the woman as mother, housewife, nursemaid, sex object and helpmate is undergoing a fundamental change, but the sociological inheritance of the past continues to exert its considerable influence. As a result, the

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1. Sweden (country report, page 2) takes an explicit stand on this point : *"Another important task for the school is to promote a choice of vocation which is free from the influence of traditional sex roles.* The choice of lines and elective subjects at school is still extremely affected by such influences. It is a well-known fact that only very few girls choose technical education at upper secondary level, while the boys are clearly in the minority when it comes to fine arts and the social sciences."

2. However, women readily accept a lower financial status because they often regard their earnings as an incidental bonus. The special attraction of teaching jobs can also be ascribed to the fact that the functions they involve are more akin to the traditional roles of mother and housewife. This shows how persistent the image of male and female roles is.

status of women too is ill-defined, and training for the 16 to 19 age group bears the imprint of this uncertainty. Education does admittedly emancipate, but it also compounds confusion, for the social system puts up a dogged resistance—though latently rather than explicitly—to true equality between the sexes, while paying lip service to it in principle. Moreover, girls generally appear quite willing to accept these options and limitations which reflect their traditional dependence and at the same time represent a definite advance in their status.

The continued survival of the traditional image of women has its effects on :

— parental wishes and ambitions ;

— the wishes and ambitions of girls themselves ;

— teachers' opinions and advice ;

— the employment of women in some high-ranking jobs.

Thus everything conspires to discourage girls from entering higher education or to steer them into certain branches of study corresponding to the pre-established range of jobs which are in fact open to women or are regarded as inherently "feminine". Frequently, too, they appear to embark on a course of study not in order to equip themselves for a later career, but in order to complete their education, out of interest in certain subjects, or simply in order to spend a few years in pleasant company and surroundings which are intellectually more satisfying than the family circle and offer good marriage prospects.

It may be that the woman's image is a more traditional one in the less affluent social strata. However, it must be remembered that such families cannot afford to give several children higher education. Where this is the case, boys will take preference over girls. [1] The fact remains that a job is a matter of more vital concern to most men than it is to women.

All these factors have an inhibiting effect on girls' ambitions and educational careers. My own view is that the move towards the equality of the sexes has built up a powerful momentum over the last few years, and that its consequences will be felt most strongly in post-compulsory education. A growing demand must be expected in this quarter.

4. *The regional factor*

This is a phenomenon for which the statistics are very difficult to interpret. In fact, there are scarcely any figures available for the second half of the secondary period.

Using the information currently available Charles Nam, [2] in his report on "Group disparities in educational participation and achievement", [3] has made a careful and cautious study of "regional disparities", [4] differentiating his conclusions according to individual cases.

I cannot do better than quote his conclusions :

"The approach taken here was to examine the data for each country in order to answer major questions raised early in the paper, that is, what are the magnitude and dimensions of geographic disparities in school participation ? Because of the limitations of data, we have not attempted to make direct comparisons among countries, but we have seen to what extent the patterns in different countries have been following a similar course.

Several overriding conclusions about geographic disparities in OECD countries can be reached :

(i) Regional disparities in educational participation are common to all of the countries.

(ii) The magnitude of disparities varies among countries, being moderate in some countries and quite pronounced in others. Even in the former, however, it is evident that the chances of a youth's being in school are considerably better in some regions than others.

(iii) *Contrary to some opinions, there has been no evident trend towards narrowing of regional disparities during the rapid post-war expansion of education.* [5] In fact, the only genuine indication of contraction of regional differences in participation appears in countries and at school levels

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1. And older children over younger ones.

2. With Monique Solliliage, Randolph Quenum and Asa Sohlman.

3. *Background report No. 4* to the *Paris Conference* (June 1970) organised by OECD. OECD publication (Paris, 1971).

4. *Section III*, pages 27 to 31.

5. My italics.

where enrolment ratios are generally high and advantaged regions have already reached a near-maximum level.

(iv) Geographic variations in educational participation are partly due to unequal rates of participation in urban and rural areas but they are still subject to explanation by factors (historical, social, economic and political) which are characteristic of the regions themselves and their environment." [1]

Since I concur wholeheartedly with these conclusions, I shall confine myself to mentioning those *factors* which appear to lie at the root of regional disparities, particularly where the 16 to 19 age group is concerned.

While the effect of compulsory schooling is to make all children attend school (though at primary level they are sometimes placed in single-class schools in country areas), this is no longer the case where school attendance is voluntary. *Population density* plays a part here : where the population is widely dispersed, it finds it harder to use the existing establishments. While they offer a complete range of courses at the level in question, clearly many of their students may have to travel considerable distances. On the other hand, if the establishments themselves are dispersed and diversified, they can only offer a limited local choice. The basic "law" underlying this phenomenon is that proximity fosters attendance.

However, even where the range of courses offered may be considered equal, the overall enrolment rates differ with the socio-economic background and with sex. Some regions are more affected than others by the socio-cultural factors discussed above in connection with the relation between inequality of opportunity and social class. The employment structures, of course, differ from region to region—there are large industrial centres, tertiary centres and rural areas. Income structures differ in a similar way ; for example, the average income in rural areas is lower than that in urban areas.

Another factor is that not all regions offer the same standard of compulsory schooling (not to mention single-class schools in country areas, though these are gradually disappearing in the more affluent countries). As a result, the students' chances of continuing to study at a later stage are also unequal, and so the "demand" for upper secondary education will be relatively smaller in country areas or industrial areas with a poorer standard of primary education. However, we must avoid any absolute generalisation on this point.

5. *Conclusions*

It is now obvious that the inequalities in matters of *access* and *guidance* are being replaced—indeed, as a result of the growing participation of young people from culturally poor backgrounds—by inequalities in *educational achievement*. This inequality is thus becoming the principal discriminatory factor in education. Inequality is now reflected in drop-out rates and by a drift, conditioned by academic results, towards *lines of study leading to less and less rewarding careers*. It has therefore been realised that the goal of *equality of opportunity*, hitherto regarded as paramount, might eventually lead, at best—following the effective neutralisation of economic, social and cultural factors and as a direct result of it—to a situation in keeping with the market economy of unfettered *competition between individual abilities*. In other words, the policy of democratisation has been seen to result in meritocratic selection, which the majority of young people reject, either consciously or unconsciously, as a valid objective. [2] This is one of the causes of protest. A system of individual competition, in conformity with a middle-class culture and accepted by a younger generation which is socially homogeneous and was selected from the secondary stage onwards, is quite naturally rejected by a school population which is increasingly heterogeneous, less and less élitist and less commonly prepared, from the family standpoint, to work towards that goal.

If the trend towards replacing the goal of equality of opportunity by that of the right to optimum personal fulfilment is a reality (although not universally explicit, still less clear in *all* its implications), then educational reforms must be given a new direction, though using the momentum of earlier reforms. The following changes are called for :

— the teaching of groups of regulation size, normally comprising children born in the same year (the classroom system, in other words), with the aim of imparting an adequate knowledge of

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1. ibid., page 31.

2. See Chapter I : Socio-cultural characteristics of the 16 to 19 age group, 2 : The elements in the crisis, Section 3 : Peer groups.

a range of subjects up to a pre-set common standard, must give way to *individualised* teaching within the flexible framework of groups of variable size, based not on age but on educational progress and on the rate at which knowledge is acquired ;

— "qualification-hurdles" (the *baccalauréat*, for example) and annual examinations based on a negative (pass or fail) selection process which force pupils to repeat classes (even in subjects they have passed satisfactorily) must be done away with ; their place should be taken by *a guidance and counselling process*—as part of the teaching itself—which follows the pupil through the system and guides him at the various stages into the channels best suited to his ambitions and abilities, account being taken of career or study opportunities, or both ; [1]

— the "teaching" principle should give way to the "learning" principle ; study then becomes assisted *self-education* instead of standardised instruction ;

— the school as a *closed* world set aside for the purposes of instruction and competition—albeit as egalitarian as possible—should become an *outward-looking* place, based on the formative resources of the real world ; this is essential if *guidance* and *counselling* are not to be confined to a search for aptitudes relating to purely intellectual and mnemonic exercises, which are still a dominant feature of the present school system.

While these problems are real ones, the signs of incipient reforms along these lines should already be apparent in the latest educational developments with respect to the 16 to 19 age group ; this is an age at which "deschooled" education appears to be quite practicable. The alert reader for whom this report is intended will have noticed that education at this level is indeed moving unmistakably in the direction dictated by the internal dialectic of the more or less conscious change, outlined above, in the goals pursued. The *country reports* are revealing in this respect, particularly as regards the growing importance attached to guidance as an integral part of education, as has already been said. Other features, in a number of countries, are the abolition of traditional types of examination and an individualisation characterised by the provision of remedial facilities. [2] Also noteworthy is the greater emphasis on technological training, either in general education or in vocational education. Most noticeable, however, is the greater range of options. These trends are everywhere in evidence in various, more or less general, forms.

1. The country reports show that this integration of the guidance and counselling process is being achieved gradually by means of careers guidance counsellors (*conseillers d'information et d'orientation*, to use the French terminology).

2. Arrangements to enable pupils to catch up are a matter of current concern in the "renewed secondary education" in Belgium. The French report (page 13) mentions the importance of "effective ways of catching up", whereby suitable pupils may be enabled to transfer from the short to the long secondary course.

CHAPTER IV

THE SOCIOLOGICAL APPROACH : OVERVIEW

Each of the foregoing chapters has been followed by conclusions which attempt to assess the educational implications of the sociological analyses.

It would therefore be superfluous to restate these conclusions here.

However, in order to give an overall view of the problems against the background of this analysis, the points to which further thought should be given are set out below.

Chapter I is an attempt to outline the socio-cultural characteristics of the 16 to 19 age group as they emerge from its relationships with the three key entities in young people's lives : the family, the school and the peer group. These relationships are at present passing through a crisis that is unquestionably serious and fraught with obstacles and cross-influences.

The problems to which solutions need to be found would appear to be the following :

— the establishment of new organic links between the influence of the family and that of the school ;

— the need to make practical experience of work a part of the programme for young people at school and to give young people at work an adequate level of general education ; and the inclusion of the social sciences in curricula ;

— the incorporation of guidance and counselling at all levels of education and training ;

— organic links between all forms of teaching and the resources of *informal* education ; the training of young people in communication, self-expression and the use of information media (critical dimension) ;

— the "open" school, or the "school without walls", which gives its "groups" access to the various educational resources (Bertrand Schwartz) ; [1]

— education for the 16 to 19 age group conceived as the *first phase of permanent education :* assisted self-education and the exercise of responsibility ;

— the required measure of "deschooling", and replacement of the classroom system by group teaching adaptable to different goals, levels and rates of progress (Bertrand Schwartz's idea of "unit study" ?) ; the importance of "common cores" and of small, more stable communities for living and studying ;

— organised training as an inherently satisfactory way of life for the age group in question ; specific and "comprehensive" establishments of the 16 to 19 age group (not including lower levels). This is the only answer if the upper secondary level is to become the first phase of permanent education.

Chapter II sets out to define the real significance of quantitative developments in education for the 16 to 19 age group.

"Education for the masses" has diversified the school population and the goals of secondary education, which is no longer the educational preserve of a ruling élite. Consequently, this education has ceased to conform to a fixed pattern.

"Social demand" at this level will increase to a greater or lesser extent depending on the country, to judge from quantitative developments in the United States.

The problems to which solutions need to be found would appear to be the following :

— extension of the period of compulsory schooling : European alignment ? Priority over other requirements (pre-primary or permanent education) ? Should compulsory schooling start earlier or end later ? Should it be increased gradually to the age of 18, but be limited to minimum part-time education ? If so, should paid "study leave" be granted to young workers ?

— alternation of study and work in order to bridge the generation gap and the gap between students and the industrial world.

Chapter III is concerned with developments in the problem of equality of opportunity. Now that the obstacles in the way of *access* at various levels, premature and irrevocable *career decisions,*

1. See Appendix VI : The educational and cultural district.

the unequal value of the various *educational channels*, which are virtually hermetically sealed, and the *specific requirements* of the various sectors of higher education (the "*monovalency*" of secondary school certificates) have been overcome, objective discrimination in the form of *educational achievement* has taken over... Equality of opportunity ultimately leads to *meritocracy*, unequal ability still being strongly conditioned by socio-cultural factors ; if these factors were to be overcome in turn, inequality would be based on genetic factors.

Since equality of opportunity appears to be something of a myth, a new principle is tending to emerge : *the educational system should serve to compensate for these inequalities by enabling each individual to develop in the manner best suited to his abilities and ambitions.*

The general, fundamental problem, therefore, is the individualisation of education and assessment ; this might be achieved, with a view to permanent education, through assisted self-education, by making guidance part of the educational process, by a flexible range of options, and by the generalised use of the "resources" of the outside world.

Thus the themes of Chapter I, relating to the crisis in the 16 to 19 age group, emerge again here in a different motivational context. This political aspect is related to the problem of the mass media and new educational techniques which are finding widespread application through them. The questions which have to be answered are complex, whether they concern the ultimate objectives or the deployment of resources to attain them. This, however, is a question of "educational return".

A point to note is that *individualisation* (and the necessary machinery for it) would ensure equality of opportunity for both sexes. It leads inevitably to the principle that education at *all* levels should be "mixed", and this principle will be all the more easy to assimilate as a substitute will have to be found for the classroom system.

Problems of regional inequality are more intricate. The solution to them will have to be sought in a policy of compensation, through the provision of money and facilities in the context of "educational and cultural districts" as suggested by Bertrand Schwartz.

The problems outlined here call for a fresh look at the structures, content and methods of education for the 16 to 19 age group. To overlook them, and instead engage in an unduly empirical policy of reform devoid of any genuine comprehensive, forward-looking approach, would in a sense be tantamount to treating the symptoms while ignoring the causes of the disease itself ; it would be wrong to respond to immediate demands which mask far more deep-seated needs and trends.

However, our educational systems are moving, though all too slowly, in the direction outlined here ; the inexorable process of social change is having its effect.

PART TWO

THE PEDAGOGICAL ASPECTS OF THE 16 TO 19 AGE GROUP

by

LUCIEN GÉMINARD

CHAPTER I

MODERN EDUCATION

1. *The functions of traditional education*

The principal functions which education for the 15 to 19 age group used to perform have been felicitously summarised by Professor Leila Sussmann (Tufts University, Massachusetts, USA) [1] as follows :

— instruction : imparting of knowledge and cognitive processes ;
— socialisation : imparting of society's standards and values ;
— selection ;
— supervision : custody of young people during school hours ;
— creation of new knowledge (this function belongs to higher education only).

To perform these functions, schools provided—and still provide—juxtaposed courses consisting of lessons, centred on different subjects. Each of these subjects is taught by a specialist teacher.

2. *The organisation of traditional education*

1. The distinction between general education and technical and vocational education was absolute, and choice were made between the ages of 11 and 14.

2. From the architectural viewpoint, schools (grammar schools, secondary modern schools etc.) were, and often still are, composed of classrooms, so designed as to enable a teacher to impart to a pre-determined, stable group of pupils the knowledge prescribed in the syllabus. In the case of day pupils, studying, memorisation and practice in the correct use of knowledge had to be done at home. Over and above their role of bringing up their children, parents played (more or less) the role of "intellectual guardians" for school work. In the case of boarders, private study was done in special rooms under supervision.

3. Teachers did not have their own offices, and in most cases still do not. The staff room was just a place of transit where administrative communications were distributed. The architectural design did not, therefore, reflect any concern for interdisciplinary contacts ; it perpetuated a teacher's isolation in his activity as a specialist ; it offered neither a living environment for the pupils nor a place of individual and group work for the staff.

4. The fairly general absence of a reference library for the pupils served to aggravate this situation.

5. School regulations were designed to instil discipline in a strongly hierarchical system.

6. Studies were, and in most cases continue to be, organised in sections. It was always difficult to change from one section to another in mid-course. Entering a section signified a virtually irrevocable choice. In most cases, this choice determined a pupil's future social status. The results of isolated examinations consigned a pupil once and for all to this or that category. A pupil's chances of entering a particular section depended greatly on his socio-cultural background.

7. Teachers, the majority of whom were men, generally came from modest backgrounds. A successful university career had brought them social advancement. Teaching staffs at grammar and secondary modern schools were thus groups of people who had "come up in the world". [2] Teacher training was, and still is in many countries, almost entirely based on the detailed study of one subject. The university qualifications required of teachers, the relative reputations of universities and teacher training colleges, the relative importance attached to each subject at university by students themselves, the varying stiffness of competitive recruiting examinations—all these factors served to create or consolidate "élitist" attitudes and gave rise to "orders of pre-eminence"

1. OECD - DAS/EID/71.46 : "The Role of the Teacher in Selected Innovative Schools in the United States".

2. This situation is changing. Detailed studies have shown that in some countries the teaching profession is rapidly being "feminised" and that almost half of all women teachers come from the managerial class.

determined by the qualifications obtained. In the face of the climate thus created in schools, no outside machinery for pupil guidance could hope to have any significant influence.

8. In this type of education, the word "pedagogy" gradually lost much of its substance. It denoted nothing more than a particular kind of relationship between a teacher and his pupils in a classroom, together with various techniques or "tricks of the trade".

9. With the spread of technological civilisation, an upheaval occurred in this system of education, making it possible for the word "pedagogy" to change its meaning and become once more the science of training and developing children, young people and (by a debatable but convenient etymological extension) adults.

10. However, it needs to be emphasised that the pedagogy implied by this form of upper secondary education may be termed "liberal pedagogy". It was initiated in technical education. A teacher's situation, now regarded as one of *isolation*, was looked upon as a *protected and liberal one*. This was the result of the general consensus, of the role of the families as intellectual guardians to their children, of society's respect for teachers as select custodians of knowledge, and of the absence of powerful technological media. In the peculiar dialogue (or monologue) between the teacher and his pupils, the teacher was able to give free expression to his personality ; he had a feeling of fulfilling himself by teaching. The diversity of teachers' characters and intellectual approaches prevented education from resulting in any intellectual conditioning of a generation of students. Whilst preserving social forms, the system maintained—at least among the future managerial class—a certain plurality of attitudes.

3. *The need for radical change in education*

1. The main causes of the process of change now under way are :

(i) the increase in the school population (and the dissimilarity of groups of pupils and their expectations) ;

(ii) the growth of knowledge (which has brought about a preposterous increase in the number of syllabuses) ;

(iii) the rapid developments in jobs, qualifications and the content of basic training :

— *commitment* to a particular type of vocational training should be delayed. There is a growing need for *continuous training*, both cultural and vocational ;

— this raises the question of the purpose of education for the 15 to 19 age group. Should it continue to be simply the second or upper part of secondary education ? Or should it also be the first stage of permanent education ?

— permanent education was originally envisaged as a continuation of schooling. But the specific problems which arose have brought about a change of ideas. The concept of *continuous education* (encompassing school activities, vocational activities of every kind and permanent education) has gradually emerged. School education must not be taken as a basis for the planning of adult education : but on the other hand adult education can and should exert a reverse influence on school education [1] Among the factors which led to this change of approach, we may note the following :

(*a*) adult education leading to university qualifications : this raises the problem of *organising the relevant examinations* ;

(*b*) the demands of cultural and vocational development : these lead to emphasis being placed on the *acquisition of personal working methods ;*

(*c*) vocational retraining : this has revealed the importance of *"change of apprenticeship" phenomena ;*

(*d*) the influence of motivation on the intensity and quality of intellectual effort has always been recognised in adult education. But traditional teaching often implicitly assumed that a schoolchild was capable of learning a set lesson without any need to bother particularly about his academic motivation, at the same time it assumed that a child's logic was the same as an adult's. Psychological research has demonstrated the converse to be true in the case of children and adolescents : a child is not born with the logic of an educated adult, and attention has to be given to motivation. There is thus a certain approach to teaching that can be transposed from adult education to school education.

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1. cf. various Council of Europe and OECD publications : studies by H. Janne (Belgium), B. Schwartz and J. Capelle (France), Kjell Eide (Norway), Hans Tietgens (Federal Republic of Germany), J.S. Simpson (United Kingdom), H.H. Frese (Netherlands), Torsten Husén (Sweden), Werner Rasmussen (Norway), F. Bonacina (Italy).

(iv) *sociological phenomena* (which are analysed in the sociological section of this report) play a key role. The need becomes apparent for teachers/family/pupil/peer group relationships and for an "opening to the world" ;

(v) the first syllabus reforms, designed to compensate for the delay in adapting secondary education, are serving to emphasise the need for transformation ; having been carried out for each subject separately, they have resulted in a loss of coherence between the languages used in related subjects (mathematics, physics, engineering etc.) ;

— it has become clear that there is an urgent need for continuous teacher training but that the introduction of such training, as few establishments have made the necessary provision, creates difficult problems and sometimes disrupts teaching ;

— moreover, there is a need for each subject to be recognised both as something to be studied for its own sake and as a means of approaching the study of other subjects ;

— interdisciplinary contacts are becoming necessary at all levels ; but they are being hindered by ingrained habits and attitudes and institutionalised structures ;

(vi) the introduction of audio-visual aids, followed to some extent by the installation of interrogable machines, calculating machines, data-processing machines and automatic numerical-control machines in technical schools, revealed the inadequacies of the system :

— there are inadequacies as regards premises, methods, working arrangements and the composition of teaching teams ;

— moreover, the unknown implications of the use of such media (capital outlay, maintenance costs, cost of producing software) present problems of a different magnitude and character from those that arise in regard to school text-books.

2. To sum up, the need for innovation does not stem from a conjectural view of teachers, nor from ideological aspirations and temptations, but from technical, economic and social factors, all of which are objectively discernible.

3. To meet this need, what reforms are being carried out ?

4. *Reforms in progress*

1. All the reforms have been designed to bring about *equality of opportunity* through the attainment of various educational objectives that fall into three groups :

(i) Group 1 :

— Achievement of individual "all-roundness" through the development of creative faculties (creativity) ;

— Stimulation of a desire to learn (motivation) ;

— Acquisition of working methods ;

— Development of social behaviour.

(ii) Group 2 :

— Facilitating choices within the educational system and developing interdisciplinarity ;

— Seeking means of preparing the individual both for further studies and for entry into working life ;

— Facilitating adaptation to employment trends and promoting the public image of vocational education : encouraging the trend towards full-time technical and vocational education.

(iii) Group 3 :

— Striving for regional equality ;

— Striving for equality between the sexes by eliminating discrimination wherever it seems to handicap girls in their studies ; [1] freeing study and career choices from the influence of traditional male and female roles. [2]

2. The reforms of structures, curricula and examinations that have been initiated in order to achieve all or some of these objectives have been geared to national situations. A few examples will illustrate the main solutions adopted in Europe.

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1. Swiss report.
2. Swedish report.

(i) Example 1 :

A single system is planned for all upper secondary education. All branches of studies are being brought together within a single school ("integrated" school). Curricula have been divided into stages, objectives being laid down for each stage and subject. There is thus greater freedom for the teacher within each stage. After a common core, studies are progressively diversified. Academic and vocational guidance is provided by specialists, who try to counteract the influence of social environment. Conditions for entry to higher education are under review.

(ii) Example 2 :

Terminal classes are preparing students for university entrance or for continued education with a view to entry to working life. Further training establishments offer flexible study arrangements (full-time or part-time). Comprehensive schools are spreading considerably : they enable pupils to progress according to their abilities. The Open University has been established. Reform plans provide for "omni-comprehensive" and "pluri-comprehensive" schools. [1]

(iii) Example 3 :

Upper secondary schools are developing and offering a wider choice of courses, combining general, technical and vocational education, both full and part-time. Curricula are being divided into "study blocks". A channel is being established from technical training to universities. There are plans for creating bigger units through co-operation among several establishments, so as to offer a wider choice of courses.

(iv) Example 4 :

A special scheme is being instituted for 16-year-old school-leavers : it involves creating *student-trainee* posts in firms and helping young people to adjust to occupational life in their first year after school.

(v) Example 5 :

Transitional classes have been established to provide a channel from vocational training courses for ordinary workers to training schools for technicians ; the training year for 16 to 17 year-olds becomes a guidance stage. Combinations of common basic subjects and "option" subjects are being tried out. All branches include scientific training and initiation in the realities of the modern world. The introduction of independent work, on an individual basis or in small groups, is intended to give students greater involvement in the educational process.

(vi) Example 6 :

Special attention is being paid to "interrelations between different educational levels", which are being combined in the interests of greater flexibility by means of the juxtaposition of basic and "option" subjects. [2]

3. One problem which remains hard to solve is how to organise studies in such a way as to prepare pupils for university entrance as well as for entry into working life. This involves inserting subjects that facilitate career choices into so-called general courses, and establishing links between schooling, the world of work and continuous education. The reports of several countries stress these difficulties and sketch out solutions.

— It is pointed out that many 16-year-olds want to lead an adult life in a paid job while also continuing to learn. Other young people, however, who have continued their studies up to the age of 19, want to put off their entry into working life as long as possible, even though they have no strong interest in any particular university studies.

— The number of pupils taking up vocational and technical studies has fallen off [3] with the raising of the general school-leaving age to 15 or 16. This is in all cases connected with the climate that is developing at an earlier stage, at the lower secondary level, as well as with facilities and opportunities for continued education and factors concerning family and social background. There thus arises the problem of guidance. [4]

— Machinery for participation by pupils and parents in the organisation of school-life and various activities has been set up fairly widely, in the form of management committees or boards.

— The continuous assessment of pupils' performance and the introduction of a units/credits system for examinations are being investigated and tried out.

— Authorities are also concerned with the problem of selective (or non-selective) entrance to universities.

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1. Biasini Commission (Rome, 1971).
2. Spanish report.
3. In some countries, however, there have been clear signs of a reversal of this trend in 1972.
4. See page 50 for a definition of this term.

5. *Educational results of reforms already completed and current lines of thought*

1. Swedish authorities and educationists have found that "educational expansion has not, to the extent hoped for, succeeded in eliminating the differences between the social groups as regards education". This observation is borne out in all countries and is in line with the findings of sociological research, which suggest that "we have now reached a turning point: from the idea of equality of opportunity—now demystified and inaccessible—we have moved on to the idea of every young person's right to receive, through education, the optimum scope for development that his individual abilities allow—due regard being paid to his aspirations. [1] The system provides for individual movements upwards or downwards, across the social classes; but, on the whole, its function is to reproduce (in the biological sense) the structures of society.

2. Changes in the educational system are due to outside influences (technological, social and economic change) far more than to internal movements.

(i) For example, educational technology has provided an initial answer to the problem of *continuous education* (itself a result of rapid developments in the labour market). This initial answer is embodied in the German *Telekolleg*, the Dutch *Teleac* and the British Open University. An overall multi-media system, organised in sectors, is being set up. But this response is marked by centralisation of decision-making with regard to the objectives, content and methods of education. [2] On top of this, the birth of a powerful education industry is revealing the influence of commercial factors on the production of educational equipment and software. Should these solutions be extended (as seems likely) to secondary education and teacher training, the reproduction phenomenon would clearly be intensified, thereby running counter to the educational objectives of the reforms now in progress. In the end, there would be no gain in terms of real democratisation and individualisation of education, and we might have cause to regret the passing of traditional liberal education.

(ii) The concept of "individualisation of education" should not be misconstrued. In purely formal terms, individualisation might be taken to mean enabling each individual to receive instruction at the place and time of his choice. This would be technically feasible with a system of video-cassettes. But *individual* reception does not in itself amount to real individualisation, even if it does not theoretically preclude it. Indeed, such a system may prove to be a cunning and effective means of mass conditioning. Genuine individualisation recognises the diversity of individuals and implies educational pluralism and the diversification of possibilities.

3. That is why—in the face of the potency of modern technology—a search is beginning for entirely new forms of education, and the concept of "deschooling" is emerging (albeit more or less under the influence of political ideology). This concept is being applied in a variety of ways and is discernible in various partial or total innovations, some of which are contradictory. In some cases, however, it is still at the theoretical stage.

6. *Some current innovations*

1. (i) Subject-differentiated teaching:

This is intended to ensure better "orientation" and guidance [3] for pupils through the formation of groups of pupils of equivalent ability for the study of basic subjects; the teaching methods and approaches are geared to the group. The arrangement also includes "option" subjects and creative activities, providing opportunities for work in both homogeneous and heterogeneous groups. Teachers work either on their own or in teams, sometimes in the pupils' presence, sometimes not, their function as guides being accentuated.

The experimental French secondary schools are examples of this type of innovation. Despite considerable variations, the modular teaching experiments, the continuous learning system and the schools in Newport, Illinois (United States) [4] may also be placed in this category.

(ii) Keele integrated school (United Kingdom):

The word "integration" here does not mean just the linking together of the different sections and branches. It also means the integration of the subjects taught. The pupils learn through their

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1. Henri Janne (Sèvres Symposium, October 1972).

2. H. Frese (University of Leiden).

3. See page 50 for definitions of these terms.

4. OECD - DAS/EID/71.46, L. Sussman: "The Role of the Teacher in Selected Innovative Schools in the United States".

own discoveries, and the teaching is organised in the form of teams of teachers and pupils. It is based on a system of "units", accompanied by suitable material (example of a unit : development in West Africa). [1]

(iii) In the above examples of innovations, educational technology is used for the purpose of "consolidating" learning and "crystallising" what has been learned. It is not the central factor to which all objectives and methods are related. Other innovations, by contrast, are based on the concept of *technological system*, i.e. a complex integrated network of men and machines, ideas, procedures and management. [2]

In the United States, MacCluer High School in St. Louis (Missouri) provides an example of this, as does Marshall High School in Portland (Oregon). [3] Teaching is based on a computer-generated, flexible modular schedule. The goal is to individualise teaching and learning by breaking the school day into small modules of time to fit the activity taking place. The pupils are organised—according to the type of activities—in large, medium-sized or small groups. The teachers not only conduct class activities with the pupils but are also responsible for planning and organising them.

(iv) The above innovations do not altogether upset the very concept of "school", and "opening education to the world" does not involve outright integration with certain non-school activities. In the People's Republic of China, by contrast, the linking of schools with the dynamic sectors of society—with the productive sector at the economic level or with the proletarian sector at the political level—is so designed as to create the fullest possible symbiosis between each teaching unit and the socio-economic community on which it depends, so that one and the same spirit will underlie productive work on the one hand and the new developing culture on the other. [4]

(v) The open school :

In the United Kingdom, the Countesthorpe Community College (Leicestershire), the Scotland Road Free School in Liverpool and the Codsall Comprehensive School (Staffordshire) are intended to become veritable resource and documentation centres. The educational approach is based on using for educational purposes "the resources of the environment—both things and people" in order to make "life and society themselves educational experiences". [5] Certain French experiments (at Evry and Grenoble) reflect a similar approach.

(vi) Educational implications :

The movement of innovation now under way has prompted various ideas for "deschooling" to be put forward. These include the following :

(*a*) "The school should no longer be the only place of education. It may be visualised as having no walls and its groups might be installed wherever learning resources are available"—Bertrand Schwartz (Paris) ;

(*b*) "A local network of centres for learning and community development using methods for self-study and group work" could be set up. This would involve greater emphasis on voluntary effort and a real choice between learning and consuming—H. Frese (University of Leiden).

Even bolder ideas are put forward by Paul Goodman (*Compulsory Miseducation*, Harmondsworth, Penguin, 1971), Everet Reimer (*School is Dead : An Essay on Alternatives in Education*, Harmondsworth, Penguin, 1971) and Ivan Illich (*Deschooling society*, London, Calder and Boyers, 1971). Illich considers that confusion is fostered between institutions and human values : the institutionalisation of these values commits us to a predestined course, and the alternative to the school is to create a new kind of educational relationship between man and his environment ; the idea of education as an independent variable, a casual factor in society, is advanced.

The report *Learning to Be*, produced at the request of UNESCO by a commission under the chairmanship of Edgar Faure, observed that these ideas do not seem capable of fitting in with any of the existing socio-political categories.

2. The question of deschooling has nonetheless been raised and deserves attention. The problem of the aims of education—and that of the very design of new forms of education—is part and parcel of the conflict between objectives pursued and situations liable to be created by the logic of the man-machine systems developed by modern society (particularly by educational technology).

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1. OECD - DAS/EID/71.43, M. Shipman : "The Role of the Teacher in Selected Innovative Schools in the United Kingdom".

2. OECD - DAS/EID/72.3, A.L. Hyer : "Effect on the Teacher's Role of the Introduction of Educational Technology and Media into Schools".

3. ibid.

4. L. Vandermeersch : "The Reform of Popular Education in China" (UNESCO, *Innovations* series, No. 13).

5. I. Lister (University of York).

3. What scientific resources are at our disposal, and can we hope to find an educational theory that can be applied to 16 to 19 year-olds ?

7. *Science and teaching*

1. The changes which are occurring in the biological make-up of young people—increase in height and, especially, the earlier onset of puberty—are influencing behaviour in ways which have not perhaps been sufficiently investigated. [1]

— The considerable advances in genetics, biology and neurophysiology show that we are still far from having developed the human brain's full potential (which no doubt varies from one individual to another). In genetic terms this potential has no connection with social background. Disparities in academic achievement are thus closely bound up with emotional and psychological development, which is strongly influenced by the family and its environment.

— These findings confirm that the objective of democratisation is justified, but no practical educational tools can yet be devised in the light of scientific findings in these fields.

2. There has been no decisive advance in our understanding of an adolescent's intellectual development and psychology in general. [2]

— The implications of psychological research and theory—and especially genetic psychology (Piaget school)—mainly concern children between the ages of 2 or 3 and 15 or 16. Indeed, it is legitimate to wonder whether schooling should not be extended downwards (from the age of 6 to the age of 3) rather than upwards (from 15 to 18).

— The psychology of behaviour (behaviourism), together with the theories of learning, may provide some useful educational pointers. A better understanding of the importance of "consolidation" in the learning process, as well as the knowledge that is being accumulated on the "change of apprenticeship" phenomenon, will undeniably have implications for teaching.

— No *educational theory* can, however, be built up for the 15 to 19 age group on the basis of current psychological knowledge, in spite of the many recent studies by universities in Europe and the United States.

N.B.

Certain psychological research findings are being adopted by educationists who find them relevant to their own observations and intuitions, and this convergence of science and empirical experience may give rise to educational theory. But the construction of theory in this way does more harm than good to the creative development of thinking. In any case, educational theory at the micro-educational level (teacher-pupil) may well be unfeasible. (The word "theory" is used here in the sense it has in relation to the process of scientific development ; it is a stage in explanatory and predictive thinking which may be overtaken by the advance of experience and knowledge.)

3. Sociology has made considerable headway with its methods and now provides an insight into social phenomena. It is not certain whether sociology alone enables predictions to be made, but from the macro-educational standpoint it is already an important instrument for studying the educational system.

4. Educationists have so far made little use of the considerable advances in linguistics, the theory of information, semiology, cybernetics, operational research and systems analysis. Yet these advances may well provide a basis for a proper approach to the study of educational systems and for the elaboration of forecasts in this field.

5. Modern education comprises two levels : a macro-educational level and a micro-educational level.

(i) The macro-educational level covers the following aspects for a fairly large population group (region or country) :

— *general educational objectives* (ultimate aims) ;

— *educational structures :*

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1. cf. Report of the Central Advisory Council of Education - Volume I, HMSO, 1967 ; and J. Hassenforder in *Innovation dans l'Enseignement*, Paris, Casterman, 1972. See also A. Moles and F. Muller in *Permanent Education*, Strasbourg, Council of Europe, 1971.

2. On the "crisis of identity", see E.H. Erikssen (Sweden) ; on the cultures and systems of values of adolescent groups, see S. Henrysson (Sweden) ; on lines of thought in relation to schools attended, see Léon (France). See also Lantéri-Laura in *Permanent Education*, Strasbourg, Council of Europe, 1971.

(*a*) general types of study sections (parallel sections, ramified sections etc.) and objectives thereof (continued education, vocational training etc.) ;

(*b*) composition of teaching staff : teachers ; or teachers and administrators ; or teachers, technicians, psychologists and administrators etc. ; functions, roles and the ways in which they are developing in conjunction with...

— *educational organisation* covering :

(*a*) the composition of teaching schedules and curricula ;

(*b*) the composition of pupil groups, linked with...

(*c*) the organisation of teaching, in the light of the choice of methods and facilities (class group, similar-standard groups, lecture-type teaching, differentiated teaching, educational technology as an aid or a system) ;

(*d*) forms, aims and methods of performance evaluation (general organisation of examinations and qualifications) ;

— *nature and forms of relationship between education and social and occupational environment.*

(ii) The micro-educational level involves :

— the relationships (among small groups and individuals) of the different partners : pupils, teachers, administrators, psychological counsellors, technicians, and families ;

— basic teaching techniques ;

— the various aspects of the teacher's work (preparation of "lessons" and tests ; different attitudes in the teaching process) ; [1]

— all *learning* problems (understanding, assimilating, memorising, consolidating, utilising, transferring) and the observation of a pupil's intellectual and general development (aptitudes, attitudes, motivation, knowledge, know-how).

6. It is probably at the macro-educational level that forecasting and decision-making possibilities need to be investigated.

(i) At this level, teaching can be seen as a system of relationships among several groups of factors :

— one sub-group of relationships concerns pupils, families, peer groups and teachers ;

— another sub-group concerns pupils, knowledge schedules, channels for the transmission of knowledge, and complementary technological media ;

— a third sub-group concerns the various partners in a school together with, on the one hand, curricula and teaching methods and, on the other, the outside environment which contributes different knowledge and various systems of social values. This school environment is a place of cross-fertilisation for the pupil's "present" and one of reception for his "future" ;

— these relationships are unlikely to be definite functions between independent and stable variables. Moreover, time plays a part with its physical and psychological dimensions : so do economic factors.

(ii) The educational system is not a system of industrial production. Its aims are both external and internal (if it is agreed, for the sake of linguistic convenience, that it can be isolated within the social system). There is continuous feedback : any effect modifies the factor which caused it. A pupil is not a product manufactured by a teacher, but a living being who develops in an environment that provides him with physiological, emotional and intellectual nourishment. Any systems analysis based on industrial or (more generally) technological models would thus have little or no validity.

7. Despite all the difficulties, the problem of building up a theory—and, to begin with, constructing a "model"—could be tackled, for at the macro-educational level individual psychological uncertainties are probably not a decisive factor.

— A research project could be carried out by a multidisciplinary team, marking the beginning of modern educational science on a systems basis.

— The findings (and it may be hoped that there would be some—on the concept of deschooling, especially) would not be usable for development purposes unless teacher training were brought into line with current needs.

— This research would not obviate the need for research into curricula, methods and means ; the latter would supply material needed for the purposes of macro-educational research.

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1. cf. J. Repusseau : *Réflexions sur l'action pédagogique et la formation des maîtres*, Paris, Colin.

8. *Teacher training*

1. It is essential for teachers to be specialists in a given subject. But they must also become professionals in education :

— Provision should be made for training in observation, the elaboration of hypotheses and the construction and evaluation of models. This presupposes basic epistemological training for all.

— There ought also to be practical training in interdisciplinarity, together with work on subjects that enable scientific, multidisciplinary methods to be assimilated for the purpose of dealing with actual situations.

— Teachers should know how to compose a curriculum or teaching schedule, by working in teams, and should be capable of providing guidance, as specialist counsellors cannot do this on their own. They should therefore be familiar with the various possibilities offered by the educational system and have some clear knowledge of the main sectors and levels of activity outside education.

— They should know about the characteristics and workings of modern societies.

— They should be conversant with and capable of applying the essential concepts of individual and group psychology, and the basic methods of sociological research. Training in assessing academic results is essential.

— Some knowledge of *comparative education* is necessary.

— All teachers must be able to use the latest educational media and know about their bearing on educational goals.

2. Teacher training of this kind could be somewhat ineffective and unpractical if provided solely in the form of lectures—even with the addition of practical work in a school and help from an experienced teacher.

3. For the first three or four years of his career, a teacher should probably have a reduced work-load so that he can attend compulsory training seminars. These seminars would provide junior teachers with an opportunity to meet research workers and various specialists. Instruction would thus be combined with a joint investigation of solutions to problems actually experienced.

CHAPTER II

EDUCATIONAL TECHNOLOGY

1. *General comments*

As already mentioned, modern educational technology (hardware and software) entails the growth of powerful national and multinational industries and thereby raises the problem of decision-making powers in matters concerning educational objectives, content and methods.

1. The high degree of technical skill required for the preparation of software, the influence of software's nature and form on its content, and the total or partial lack of proper technical training for teachers all combine to place genuine power in the hands of specialist technicians. In view of the high production costs and the size of the investment involved, producers are beginning to ask for some control over the content prepared by teachers (cf. television).

2. As far as materials are concerned, machine systems which create techniques of perception, communication and understanding [1] pose problems that do not arise in the case of technology which is concerned with the production of objects. The latter kind of technology has a clear-cut aim : a drill is meant to drill holes. The former kind has, over a broad area, uses—and hence workings—which need to be defined by a "programme". The user thus has considerable freedom for manoeuvre and needs wide-ranging and specific information.

3. There are two schools of thought on the introduction of educational technology into education :

— one favours the insertion of multi-media systems into the educational system without any prior reappraisal of the system's structures ;

— the other approach is to work out a completely new technological/educational system, geared to the logic of man-machine systems and the objectives.

4. The choice between these two approaches may be left to the hazards of circumstances. This "no policy" policy will often be adopted because of a lack of adequate criteria, or under the impetus of existing arrangements. But it may be decided to carry out studies and research with a view to a deliberate choice being made, for changes of course are difficult, if not impossible, in this field, given the amount of investment required.

5. In the European countries which have long-standing educational systems, a large body of teachers and university faculties of arts and science geared to research and teaching, the introduction of modern technology into school education will entail higher costs, at least over the next thirty years, owing to :

— problems concerning upkeep, maintenance and the recruitment of technical staff (without any reduction in the number of teachers) ; the cost of software ; and the inability to gauge the "return" on education in any way other than in quantitative terms, by counting the number of pupils starting and leaving school (we still do not know how to take into account an individual's subsequent career, or assess how far the quality of general schooling affects the value of socio-economic activities). [2]

6. It is in the as yet little institutionalised field of *continuous education* that educational technology can very soon begin to play an important part, by enabling costs to be reduced.

2. *The educational effects of audio-visual technology*

1. Some of the findings of current research are relevant to the 15-16 to 18-19 age group :

— Audio-visual media (slides, films, tape-recorders, radio, television, video-tape recorders and video-cassettes) can bring the world of events, the "adult world", into the school. This reverse form of an opening to the world is undoubtedly a powerful tool. Put to good use, it can offset regional disparities. But it can contribute both to standardisation and mental conditioning and to the development of cultural pluralism with mutual understanding.

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1. cf. A. Toffler : *Future Shock*, London, Bodley Head, 1970, and various studies on futurology.

2. See G. Becker : *Human Capital* ; the studies by Edding ; Blaug : *The Rate of Return on Investment in Education in Great Britain* ; and M. Debauvais : *The Concept of Human Capital*.

— Audio-visual media make it possible to manipulate time and space. The development of a very slow or very rapid process can be shown and explained. Different urban structures can be compared. But there is a danger of confusion (actual duration and apparent duration), which may lead to substantial errors and hence impossible demands.

— Audio-visual media can overcome the problem of the opaqueness of objects. For instance, it is possible to show, super-imposed, the form of the skeleton of a living creature's movement in various phases, or an underground geological phenomenon.

— The possibility of placing a component in its system and a phenomenon in its context is an important aid to education.

— "Multi-sensory mobilisation" can facilitate memorisation.

— But as soon as it comes to using educational technology in order to present intellectual subjects, ideas and concepts, there arises the serious problem of the author's subjectivity : *we are not able to produce audio-visual software that permits us, in the realm of ideas, to separate the impersonal content from the producer's personal contribution.*

2. Little-known or harmful effects include :

— A great danger of verbalism owing to the multiplicity of images. There is also potential danger of developing approaches and processes of reasoning that are based merely on appearances.

— Audio-visual media integrate movement as something represented : i.e. they *eliminate* movement as such, and *intellectualise* it before it has been actually experienced. [1] It is thus possible to develop a teaching situation that runs counter to t. : conditions required for the development of intelligence as demonstrated by genetic psychology.

— There is a Chinese proverb that runs : "I hear and forget, I see and remember, I do and understand." Reliable experiments have shown that abuse of visual messages may result in the second phrase being changed to : "I see too much too quickly and also forget."

— For practical or economic reasons, there is a great temptation to construct linear algorithms in the preparation of audio-visual material. This may lead to over-simplification that is all the more dangerous for having the semblance of reality or objectivity or both.

— Audio-visual media exert their influence through their form and nature (effects on perception) as much as, perhaps even more than, through the content of the message. [2] But little is known about this influence.

— Finally, a twenty-minute audio-visual programme contains 10 to 20 times fewer items of information than the columns of a newspaper read in twenty minutes. (For this handicap to be offset, visual images representing objects—*iconic* images—would have to be symbolised, and the system of signs thus created would have to be given the properties of typographic signs—*arbitrary* images—which stem from the "double articulation" of language. We would then end up with print, and the television screen would present the printed newspaper !) That is why writing is alone compatible with the expression of ideas and arguments of any subtlety (i.e. complex ideas and arguments which need to be set out clearly).

3. *Other forms of technology*

Audio-visual media penetrate every aspect of human life and require the development of critical training for listeners and viewers. Teaching machines, data-processing and programmed learning—although uncommon among the general public—are inducing thinking and developments of considerable quality and educational importance :

— They involve the various problems regarding the analysis of knowledge, the compilation of information, and educational control and feedback (for cognitive as well as creative aspects). Study cannot be superficial, and a scientific approach is essential. Genuine individualisation and adaptation to individual understanding are possible.

— The potential of these forms of technology, directly linked as they are with the operations of the mind, is considerable. It is at these techniques that educational thinking should be forthwith directed. For they too, in spite of their advantages, may lead to defective teaching (especially in regard to certain mechanised forms of programmed instruction).

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1. L. Legrand : *Une méthode active pour l'école d'aujourd'hui*, Geneva, Delachaux and Niestlé, 1971.

2. Various studies, including those of McLuhan.

4. *Conclusions*

1. A teacher's activities in education of the traditional kind may be broken down as follows :

(i) *preparation of lessons* (putting information into a form suitable for an audience of pupils, or "processing information", as we would say today) ;

(ii) *minimum organisation of the class for the reception of the lesson* (transmission of information by the spoken word, signs and writing on the blackboard) : reception imposed by discipline ;

(iii) *testing memorisation and understanding* (oral and written questioning ; marking—together with rewards and punishments—ensures "consolidation", whilst activities outside the classroom may make it possible to see where the difficulties lie) ;

(iv) *testing pupils' ability to apply knowledge* (to problems related to the subject being studied) ;

(v) *training in the transposition of knowledge* (through a study of miscellaneous problems and situations, not confined to the subject being studied and through inter-disciplinary links). [1]

2. In education of the traditional kind, little is done as regards point (v), whilst point (ii) takes up most of the time. Analysis of information and the preparation of lessons for a given group of pupils is partly intuitive.

3. The introduction of educational technology inevitably alters the relative importance of these phases. A function of software production is added. Critical observation of "message reception" becomes essential, and is differentiated from the testing of memorisation and comprehension.

4. The methods provided by data-processing and programmed instruction are most fruitful for points (i), (iii), (iv) and (v).

5. Thus, alongside economic and technical requirements, a new kind of teacher training and a change in teachers' roles need to be organised and prepared.

6. A special comment needs to be made in connection with point (i)—*preparation of lessons* (or processing of information) :

— In traditional education, a teacher generally bases his lesson on material (various documents) which his pupils cannot see and are not aware of. It has been found that teachers are disturbed at the idea of their pupils being in possession of the books they use as their sources. When audio-visual messages, from outside, are used in the classroom, this situation is at once transformed : the sources of the lesson and the reasoning are apparent to both the pupils and the teacher.

— But the programme producer can still conceal his sources : and if teachers form a group of programme producers, the sources of information may be even further removed from pupils.

— Conversely, in the case of teaching by radio or television, a teacher who is with a group of pupils receiving a programme may not be familiar with the programme's producers or their sources of information and precise objectives. As a result he may well act as an interference, and hinder the pupils' understanding. The producers, for their part, may be ignorant of the pupils' characteristics and expectations.

7. These examples show *the crucial importance of the way in which educational technology is applied.* It may either reinforce attitudes and relationships—including their disadvantages and shortcomings—or bring about a change in the pupil's relationship with knowledge and in teacher-student relationships.

8. In any educational technology policy these factors must be taken into account, and structural links need to be established between educational research, the production of audio-visual messages and the educational utilisation of tools and messages. The establishment of such links will depend on, and in turn influence, an overhaul of the educational system.

1. cf. research conducted at the University of Liège under the direction of Professor G. de Landsheere.

CHAPTER III

TECHNICAL AND VOCATIONAL EDUCATION

1. *The facts*

1. The general trend (as was seen in connection with structures) is to bring together, co-ordinate or integrate technical education and general education, and to delay commitment to a specialised section of vocational education.

2. The reforms introduced depend on the predominant forms of education. There are two main groups of countries :

— In the first group (notably the Germanic, Nordic and Anglo-Saxon countries), there is a wide variety of branches of education, offering highly flexible combinations of activities up to a given occupational qualification.

For instance, the qualification of specialist technician can be obtained by means of full-time or part-time training alternating with employment. The same qualification can be obtained by means of a direct full-time course. Moreover, the length of the training required to reach a particular level varies from one occupational sector to another.

— In the second group (notably Mediterranean countries), vocational training branches are less varied, and the length of the training required to reach a particular level is the same for all occupational sectors.

3. In any case, there is no doubt that changes in the nature of jobs will have an important bearing on whatever educational arrangements are adopted.

2. *Analysis of jobs and occupational functions and activities*

This analysis involves economic, financial and technological factors, as well as the aspirations of social groups. It should be visualised not in terms of wage differentials but in terms of different levels of competence and changes therein.

1. *Levels of competence*

(i) This question requires the observation and description of processes of industrial design and production. (Attention is deliberately confined to industry.)

— This description should provide a guide to the "sensitive" or "critical" areas. These designations are suggested for changes in production systems that clearly reveal a change in the qualifications and combinations of competences required.

— It is highly likely that such observations will call in question the levels of vocational training that are still generally accepted, viz. :

— *manœuvre*	⟶	unskilled worker	⟶ *ungelernter Arbeiter*
— *ouvrier spécialisé*	⟶	semi-skilled worker	⟶ *angelernter Arbeiter*
— *ouvrier qualifié*	⟶	skilled worker	⟶ *Facharbeiter*
— *technicien*	⟶	technician (end of upper secondary education)	
— *technicien supérieur*	⟶	advanced technician (end of post-secondary studies at varying levels)	

— The usual job analysis methods,[1] it should be noted, are not adequate for the purposes of studies of this kind, which are intended to identify the content of training and aptitude development.

(ii) Once these critical areas have been established, the next stage is to determine, by means of *systems analysis* and *content analysis*, the various levels of competence and the structure of competences, i.e. "qualification profiles".

— However, qualification profiles and levels of competence are not directly linked with economic sectors, as classified by industrial and commercial criteria. The post of maintenance engineer, for instance, is to be found not only in the metallurgical sector (mechanical and electrotechnical sub-sectors) but also in the clothing industry or the food industry.

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1. These job analysis methods usually relate to the organisation of production in a firm, or the establishment of pay scales, cf. work of CEREQ (Paris). Moreover, a large number of new occupations are emerging.

— The profile of the *qualifications required by the job* depends on a number of factors, viz. :

- size of the firm ;
- organisation of the firm and organisation of production ;
- the amount and technological level of workshop equipment ;
- production series and tempos ;
- technological level of the manufactured product, degree of reliability required and conditions for the maintenance and service of manufactured products ;
- other technical and human factors are also involved. One of them—communications (among the firm's departments and its personnel)—plays a very important part.

(iii) Let us assume that systems analysis can reveal the profiles of qualifications required for given functions in various occupational sectors.

Although based on a common core of knowledge and skills, such qualifications will undoubtedly present a number of variations—from one branch to another and from one firm to another. However, the initial training system can hardly be expected to cater individually for each sector and firm. It is therefore the common core that will be taught in schools, resulting in an *acquired qualification*.

If, between the study of qualifications required and the initial output of acquired qualifications, there has elapsed a period during which economic and technological changes have transformed methods of production, the unsuitability of the initial training will be considerable and difficult to tolerate. This results in a problem that may be expressed in the following terms : "study of the discrepancy between qualifications required and qualifications acquired in terms of time and economic and technological changes affecting production".

— As far as mass production is concerned, uncertainties arise from the fact that changes in jobs and functions stem from the development of a number of factors, including :

— *The lifetime of a product*

This varies considerably : simple products (coal, natural gas) have a longer lifetime than highly complex ones (e.g. pharmaceuticals).

— *Market fluctuations*

When a product is being launched, the number of jobs required for its manufacture is uncertain. Later, while production is expanding, the number of jobs increases. Later still, after production has levelled off, the number of jobs remains constant. But in the fourth phase, when the market shrinks, the number of jobs decreases. The duration of these phases is hard to predict.

— *The dynamism of a firm*

A firm's marginal economic potential (which allows investment) and intellectual potential (which allows innovation and forecasting) have effects on employment. In some sectors, there is no guarantee that the fluctuations of individual firms will cancel one another out. At macro-economic level, therefore, there may be uncertainties lasting from several weeks to several years.

(iv) What points of reference should be used for defining levels of competence ?

— There may be a temptation to define levels of competence on the basis of wage differentials. But in many cases these do not correspond with the levels of initial training, especially since beginning with the function of "technician", a distinction must be drawn between "functional" and "operational" jobs (there are often special bonuses for the latter).

— School-leaving levels are another possible point of reference. But the discrepancies between these levels and the responsibilities exercised in firms vary considerably.

— An attempt may be made to use the specialist knowledge required by a particular job as a criterion, comparing such knowledge with levels of university studies. But the composition of the knowledge is not the same.

It seems preferable to define levels of competence in relation to technological aims

— Technology means here the whole range of scientific attitudes and methods which :

- make it possible, at a given time, to visualise the technical equipment and techniques required for the purpose of acting on the natural environment ;
- enable the latest findings of scientific research to be studied in order to determine their practical applications ;
- "consume" existing technical equipment and techniques and use them to create new equipment capable of greater precision and higher performance.

— For example : studies aimed at providing theoretical and practical knowledge of civil engineering and town planning would have levels defined in relation to problems concerning the technological aim, which comprises the design and construction of buildings forming an urban unit.

Such aims are admittedly utilitarian and are not concerned with knowledge for its own sake.

But scientific development has gone beyond a point that might be termed the "threshold of phenomeno-technology". This means that scientific observation is becoming more refined, and is being directed at phenomena that are produced or "manufactured" by means of technological equipment without which precise phenomena could be neither isolated nor perceived.

Does the *balanced development of intellectual attitudes* offer any less coherence in the case of forms of knowledge that are combined for the sake of technological objectives than in the case of forms of knowledge that are arranged in accordance with a desire to understand a family of phenomena ?

This is no longer certain.

Research might be conducted into the intellectual development value of combinations of knowledge resulting from technical training.

2. *Technological culture*

(i) Technical training develops certain intellectual attitudes, corresponding with patterns of behaviour that may be termed "cultural".

The technician adopts a fairly pragmatic approach in his work, whilst using scientific methods and techniques. His attitude is not, therefore, calculated to foster theorising and conjecture ; and, allowing for any ingrained personal traits of character he may have, it does not make for ideological dogmatism (or at any rate, not as a result of his technological studies *per se*).

— It is nonetheless true that conservative (and sometimes dogmatic) professional attitudes may be observed among technicians and engineers working in firms. But these attitudes seem to stem more from sociological phenomena (and, in particular, the power and authority exercised by these technical executives compared with that exercised by administrative and commercial executives) than from the technical training itself—unless this training consisted of no more than a succession of practical links.

A certain degree of empiricism, the use of "trial and error" methods coupled with rational techniques of observation and measurement, and a scientific approach to the analysing of concrete situations, are probably the hallmarks of a technological culture.

(ii) Is such a culture accepted among the traditional cultures deriving from general education ?

3. *Conclusions*

1. It is, of course, difficult to decide what links should be established between vocational training and general education.

The following arrangements are contemplated :

— incorporating vocational information and practical technological work in general courses ; increasing the amount of time spent on general subjects in vocational courses ;

— trying to embody vocational knowledge in general subject syllabuses by recasting the latter ;

— instituting general courses that are technological as opposed to "technical" (see Section 2.1 (iv)). A technological course would be centred on a techno-scientific field (e.g. the problems of control and regulation, or the problems of civil engineering and town planning). This would be followed by purely technical training, on a "sandwich" basis, as a preparation for employment. The continuation of studies at post-secondary or university level should be made possible in the same field of study. Provision would have to be made for conversion from the chosen field to related fields.

2. Whatever arrangements are adopted should provide a means of continuous training, especially since the disharmony between guidance within the educational system and the needs of the economy is inducing industry to operate training centres at different levels to serve as "counter-universities". [1]

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1. cf. information on education in China (Chapter I, Section 6.1 (iv)) as well as ideas on deschooling (Chapter I, Section 6).

CHAPTER IV

THE EDUCATIONAL APPROACH : OVERVIEW

1. *The essential conditions*

1. "Orientation" must be coupled with pupil guidance. Professor Henri Janne has explained the meaning of these two terms as follows :

— "Orientation" is basically a matter of informing the individual about his own possibilities within the educational system, making him aware of his aspirations as translated into motivations and telling him about the openings available for the qualifications he is capable of acquiring.

— Guidance (which is a part of "orientation") is carried out in the course of actual educational activities and involves the provision of continuous educational advice and the correction of individual deficiencies (working methods, character defects, shortcomings of all kinds) ; it may range from tests and performance analysis to psychoanalysis and medical help (if the deficiencies are due to health factors).

— "Orientation" tends to be collective, guidance individual.

2. Changes in society's "values" need to be analysed, and such values compared with "values taught".

3. A choice of overall and operational objectives is essential for the establishment of an education based on "orientation".

The general objective of the optimum development of individual personality should be coupled with more practical objectives :

— Should different types of education be chosen according to the levels and sizes of possible openings ?

— Should we aim at maximum general education for all, trying to sever the connection between level of education and level of employment and income (but without fostering attitudes at odds with the problems of modern civilisation) ?

4. There can be no policy for education based on "orientation" unless "day-to-day management" is aware of research findings and pays heed to the objectives adopted.

5. There can be no education based on "orientation" if the scientific, literary and technological cultures develop without any inter-communication or cross-fertilisation. Nor can there be any such education unless (as pointed out already) teachers are aware of the training opportunities and outlets offered by the educational system as a whole.

6. There can be no real "orientation" if the school atmosphere results in *different degrees of "nobility"* being attached to individual subjects and courses.

The attitudes of teachers, peer groups and families are crucial here.

— It is, of course, necessary to combat any confusion in this regard, whether deliberate or otherwise.

— The difficulties which different studies involve obviously vary according to their nature and level.

— The intellectual capacities of certain individuals may, as a result of their previous development, be arrested at certain levels, between the ages of fifteen and nineteen.

— But these different "degrees of ability" should not lead to different degrees of "nobility" being assigned to activities and functions.

— Such an attitude is a relic of a caste mentality, which frequently obscures the real nature of certain socio-economic developments and prevents "orientation" from being properly carried out.

— That is why the value of courses demanding aptitudes at least equal to those required for general studies is still underestimated.

— The problem of differences in ability may lead to an education based on *meritocracy* ; this may also hamper "orientation".

7. The fact that the age of 15 to 16 coincides with the end of the period of transition from adolescence to adulthood means that a 19-year-old is an adult.

Consequently, if an education based on "orientation" is to be possible, the education given to 15 to 19 year-olds will also have to be a preparation for self-management and self-education, these concepts being construed as goals to be achieved by the pupil and not as means to be suddenly used by the teacher.

Teaching must not stifle the development of individual personality. However, the environment of traditional full-time schooling is not suitable for everyone alike in this respect. Flexible structures are needed. [1]

8. There will be no chance of achieving an education based on "orientation" unless a persuasive information campaign is conducted among families.

Families always have a preference for familiar courses and established qualifications as a means of ensuring "secure" futures for their children.

A similar campaign is needed among industrial managements and employment authorities.

9. Any major change in education needs an outside impetus ; but the implementation of such a change, which always takes time, requires an active and determined contribution from teachers. There are, however, many teachers who confuse their role with their function.

In a stable system, the function of teaching is transformed into roles ("... the person who 'knows' and who communicates his knowledge to the person who does not know ; ... the person who trains and teaches the rules to the person who is ignorant of them...") ; these roles remain constant and are finally indentified with the function itself. [2]

The essential aim of education is to develop pupils' knowledge and skills so that they can understand, master and control technical and economic developments and transform the powers conferred by such developments into civilised values.

The forms in which this function of education is exercised will need to be changed whenever the general conditions of life change.

The ability to innovate for the purpose of attaining specific objectives is thus an essential capacity (cf. biological adaptation of an organism to environmental changes in order to retain control over the environment).

10. Unless the conditions set out in sections 1.6, 1.7, 1.8 and 1.9 are fulfilled and guidance is provided, the efforts of psychological counsellors will be of little avail, particularly since they are not fully integrated with the teaching profession, [3] and any deviation from the course anticipated by pupils and families will be regarded as a failure or a doubtful choice or both.

11. An education based on "orientation" will entail the setting up of a system for the continuous assessment of knowledge, the organisation of examinations by subjects, and the development of permanent education. [4]

2. *Educational structures and systems*

1. Some countries in Europe have adopted educational structures which start with a common basis and then branch out in different directions (study "blocks").

The same countries generally offer flexible curriculum arrangements—with alternation between school education, occupational activities and part-time training.

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1. cf. the psychology of interests : the problem of "differential predictions" for the purpose of guidance in the different kinds of studies ; the problem of predicting occupational success ; the influence of socio-cultural background - Henrysson, Nilsson and Nordlund (University of Umea, Sweden) and Miles (University of Hull, United Kingdom).

See Debaty (University of Liège) : *La Mesure des attitudes* ; Super (University of Columbia, New York) : *Psychology of Interests* ; Vernon (University of London) : *Structure of Human Attitudes* ; Le Ny (University of Paris) : *Apprentissage et activités psychologiques.*

2. OECD - DAS/EID/71.86, R. Laflez : "Conditions Favourable to Innovation in Education—An Analysis of the Fundamental Factors in the Recruitment and Training of Persons Responsible for Teaching", page 6. "(Innovation) would be impossible if it were not also agreed that new functions may prove necessary, and above all that the known functions of teaching, advising, inspecting and administering may call for new roles and new tasks. In order to improve the exercise of the former, we must be prepared to change the latter."

3. cf. N. Reuchlin : *Traité de psychologie appliquée*, Paris, P.U.F., 1971.

4. There arise, of course, the various problems regarding comparisons of examination standards and relationships between curricula and examination syllabuses laid down by bodies other than teachers—see Wrigley (Schools Council, London).

Other countries have adopted a system of separate courses with transitional classes that enable pupils to move from one course to another—usually from a general course to a technical one. The incorporation of "option" subjects in the courses does not entail any shift towards a branch structure but serves to create parallel sub-courses. (The system does not undergo any mutation but "adopts" innovations in order to consolidate itself.)

These countries offer less scope for combinations of part-time and full-time curricula.

There are also variants representing half-way houses between these two kinds of structure and system.

2. Both structures, however, seem to offer scope for initiating an education based on "orientation" and guidance by means of an arrangement of the *school district and continuous education* type.

Full use should be made of the various ways of integrating general and vocational education ; interdisciplinary links should be established ; and activities relating to multidisciplinary themes should be introduced. An "opening to the world" is essential for teachers and pupils alike.

An education based on "orientation" will in all cases require the definition of cognitive, methodological and operational objectives in respect of different subjects and levels.

— This means that school heads and groups of teachers responsible for a large number of pupils must be given genuine educational autonomy between any two levels.

— Whereas total centralisation in educational matters makes co-operation among teachers and schools superfluous, educational autonomy (which is not the same as educational *individualism*) necessitates a comparison of methods and approaches among schools, a comparison of results, an exchange of information and the provision of mutual assistance.

— A co-ordinated group of secondary schools of various kinds could form an "educational district", for the purpose of organising continuous education.

— This general pattern, which would allow of various combinations of full-time or part-time studies (including sandwich or block release arrangements), could probably serve as a basis for the establishment of an education based on "orientation".

— With a system of this kind, educational inspectors would fulfil an essential function of observation, co-ordination, counselling and study in regard to innovation and organisation.

3. To sum up, an education based on "orientation" should not overlook differences in aptitudes and abilities ; but it must not transform these differences into a system based on caste or meritocracy.

The danger of meritocracy lies in its connection with an axiomatic system based on the concept of "gift"—the "gift" of such and such a teacher who teaches well, the "gifts" which certain pupils have for fully understanding whatever is explained to them. [1]

This system does not tally with any general reality in education, just as the idea of "original vocation" does not square with the reality of the taking up of studies leading to the teaching profession.

The system precludes all consideration of the real educational problems, which relate both to institutions and to people.

— Unless people change, any reform of institutional structures will produce unsatisfactory results. Old habits always find their way into a new framework, which was not designed to accommodate them.

— If people begin to change, institutional structures must be transformed. For in our highly technological modern society, with its complex system of organisation, although the "breath of the spirit" may still be necessary, it no longer is enough for bringing down the "walls of Jericho".

— Hence the need to get away from the old conflict between "changing people in order to change the world" and "changing the world so that people may change".

4. The search for a solution necessitates a strategy.

Any educational strategy presupposes an objective, defined by a set of phenomena that are desirable in terms both of values and of magnitudes (quality and quantity).

This objective thus governs a "situation" at some point in society's future, as it may be envisaged and projected on the basis of the present situation.

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1. cf. J. Repusseau, op. cit.

The pursuit of this objective entails constant involvement in action, as well as the observation and assessment of such action—as far as both people and acts are concerned. A study must be made of the influence which the methods and means used may have on the values and magnitudes pursued, and this study must in turn help to shape the action.

Such a difficult course may be dismissed as Utopian. It may be argued that there is as yet no scientific methodology appropriate to it, and this may well be true ; but the present state of knowledge and of the way in which knowledge is organised cannot stop the current of thought or halt the progress of life itself.

In any case, nothing is or can be of any worth without coherence of action and recognition of the effect of all the relevant factors. [1]

1. Educational structures, facilities, methods, curricula, school and adult education, in-service training for teachers, administrative and financial rules, relationship with the school environment, and the advance of knowledge.

PART THREE

GENERAL ISSUES

In some respects everything seems to go on as if students in the 15-16 to 18-19 age group on the one hand, and most of the teaching body on the other, belonged not only to different generations but also to different civilisations. This situation will continue throughout the present decade.

The problems which ensue, combined with those which derive from increasing numbers and from the development of knowledge and techniques, give rise to a need to change the "philosophy of education" ; many and diverse innovations in all countries bear witness to this situation. The concept of "deschooling" is emerging.

But a policy of innovation and transformation is meaningful in the more or less long term only if it marks out the path towards a definite objective.

One of the basic problems is surely to define widely accepted objectives, giving them attainable substance and examining the stages in its attainment.

The problems considered in this study can be expressed in the form of questions, and arranged under 13 points.

A. *Principles*

1. Should the education of the 15-16 to 18-19 age group be seen as the *first phase of permanent education* in an "adult" perspective or as the *final phase of "school"* in an ending of "childhood" perspective ?

2. Should the education of the age group be envisaged as an *end in itself* or as an *anticipation* of future activities ? Can the two approaches be reconciled ? Can one maintain the thesis that *the best preparation for the future would be to arrange a way of life satisfying in the present ?* Need to set up a system of *joint management* in order to define this way of life ?

3. If the answer is affirmative to points 1 and 2, should one move towards the implementation of a *deschooling process* in upper secondary education ? Hence the need to see the implications clearly.

B. *Methods*

4. *Extended compulsory schooling or voluntary education* from the age corresponding to the beginning of upper secondary ?

(i) If the choice is for traditional full-time compulsory education, should one proceed by "horizontal equivalences" ? Working backwards (pre-primary) or forwards (upper secondary) ?

(ii) What are the prospects of legally prolonging education as an obligation to train *part-time with a compulsory minimum ?*

5. Should the integration of general and vocational education be pursued ?

(i) Does integration not imply a revision of curriculum design and content for certain subjects in general education such as physics, chemistry... for instance ?

(ii) Should an introduction to technology or an introduction to the socio-economic aspects of technics, or both, be included in general education ?

(iii) Does not integration imply the organisation of occupational training in two phases : a phase of technological instruction counting as general education and a phase of vocational instruction with progressive specialisation ?

6. What of a training system for the age group based on *alternating periods of study and employment ?*

Possible formulas :

(i) Reform of *apprenticeship* indentures in order to guarantee a balanced training (with sufficient general education) ?

(ii) *Work experience* or *information courses,* or both (in industry or the public sector), included in the curriculum for full-time general education "lines" ?

(iii) On the basis of a statutory obligation, reorganisation of *part-time* study systems in favour of young people who have started work ? To this end hours of work specifically organised and limited by law ? Without loss of wages.

7. How to assure a genuine integration of *guidance* and *counselling* in the training process itself ? Respective roles of specialists and teachers (their training for this purpose and their retraining) ?

(i) For guidance to be genuine and not seen as the result of social predetermination and failure at school, should not the status of teachers be unified and should not the principle be established that every teacher should have a twofold training :

— as a subject specialist,

— as a practitioner in pedagogics and the educational system ?

To be effective, should not the second part of this training be organised in part before taking up the job but with most of it coming during the earlier years in the profession ? Should not seminars be organised bringing young teachers together with researchers and various specialists, in order that knowledge and techniques may be imparted at the same time as solutions are sought to the difficulties actually experienced by young teachers ?

(ii) For the age group in question, should the present examination system be completely replaced by subject tests at various levels or by continuous assessment, in order to make the guidance and counselling procedure wholly effective ? This is bound up with the definition of upper secondary as the first stage of permanent education in the "adult" perspective.

8. How is it possible, at this level, to get a better *concentration of the educational effort of the family and teachers responsible ?*

(i) Right of initiative and powers of "school committees" (certain American examples...). Composition ? Democratic election.

9. What are the implications—for the methods to be applied—of passing from a system of instruction *(to teach)* to a system of *assisted self-training* and *individualisation* of education *(to learn)* ? Is this desirable and is it wholly feasible ? Can it be achieved by stages ?

(i) Should one try to speed up the process of innovation towards precise objectives, by organising pilot experiments for various educational formulas ? (Module-based instruction, continuous learning, integrated teaching...).

If it is considered impossible to undertake a deschooling process, should one retain in a general way the notion of "education by objectives" ?

This notion implies the definition of levels of knowledge and ability, the planning and organisation of teaching provided between two levels being the responsibility of each establishment. Such a concept implies two movements : increased pedagogical autonomy for the institutions and the necessary confrontation and co-ordination of methods and results between the institutions.

Does such a concept not imply a new definition of the function and powers of the inspectorate as well as of the teachers ?

(ii) Should not budgets provide for the systematic installation in the establishments of documentation centres for the use of pupils ?

(iii) A. What should educational policy be in respect of the use of modern communication and teaching technology ? Should it be different for full-time, part-time or continued education ? Or should one go in for "media centres" open to various types of user ?

Comments

(*a*) Audio-visual media often provide fruitful educational resources but raise numerous questions concerning their influence on the development of intellectual processes. Equipment is still evolving rapidly. It requires attention from technicians ; it involves the establishment of a maintenance network ; compatibility of apparatus is not guaranteed. In the present state of educational systems in European countries, it necessarily increases costs.

(*b*) As a means of analysing and programming information, the computer involves research into how the syllabus for each subject taught should be organised and presented.

(*c*) Interrogable machines raise questions about the techniques of programmed instruction.

(*d*) The choice of multi-media facilities depends on the audience, the type of knowledge to be acquired, the overall pedagogical structure, the premises.

(*e*) If from the point of view of values the machine is neutral, each type of machine imposes a logic which is that of the "man-machine" system concerned. This logic is not necessarily compatible with all the educational objectives.

Systems analysis as used to solve industrial problems is not applicable to educational systems. A specific type of analysis must be devised.

B. Should one therefore choose between two approaches :

the introduction of "technological media" into an education which is not determined primarily by the "machine-logic" factors,

or

the establishment of an "educational system" based entirely on "educational technology", i.e. on a complex, integrated organisation of persons, machines, ideas, procedures and management ?

C. Should equipment policy not be conceived in relation to the answers given to the three questions concerning principles ?

(iv) Does the reply to item 8 imply the complete or partial abandonment of the "*classroom system*" (see definition above) ?

(v) Should the traditional "class" be replaced by "groups" which vary according to the objectives, the options, the progress of participants, who might be at different levels according to subjects, which might sometimes be *interdisciplinary* ? Implications ? Does education require membership of a "base group" providing a sense of belonging and security ? If so, how can this exigency be reconciled with the first ?

(vi) In the permanent education perspective should adults be admitted to these "groups" ? [1] What would their role be pedagogically ? "Helping others to learn is the best way for an adult himself to learn" ?

10. Should the resources of *non-formal education* be made use of *in liaison with the school ?*

(i) In this context is it necessary to "recognise" and make room for the youth sub-culture and peer groups ? How to resolve the problem of the divergence of this sub-culture from the central values of society ?

(ii) In this context and that of training through work experience (see 5), at what point should the school cease to be the "*place*" of instruction and become the *agent of utilisation* of educational "resources" located outside its walls ? (*L'école sans murs* ; *School without walls* ; the "educational cultural district" formula).

11. To ensure the conceptual link between "study and work", what could be the place of the *social sciences* in the upper secondary curriculum ? [2]

12. With a view to the use of *non-formal* education media, should one introduce or develop education in *communication, expression* and *information* (selective criticism) ? [3]

13. The replies to the foregoing questions should be conflated in a *coherent synthesis* ; to the extent that they are affirmative, they imply a process of deschooling in upper secondary education. An educational policy requires *step-wise planning* to this end. Any loss of control over the process would, in fact, threaten to plunge the education of young people of 16 to 19 into chaos.

These, it seems to us, are the problems to be taken into consideration.

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1. The participation of adults in "study groups" at the upper secondary level would contribute to overcoming the generation gap in the same way as alternating study and work.

2. cf. French report (p. 9) which includes this type of initiation in the future "basic training".

3. ibid.

PART FOUR

APPENDICES CONCERNING THE QUANTITATIVE ASPECTS OF THE SOCIOLOGICAL APPROACH

APPENDIX I

Table 1

Present duration of full-time compulsory schooling

	Duration	Ages	Date of last law applicable	Changes decided upon or expected
I. *Common Market countries*				
Federal Republic of Germany	9 years [1]	6 to 15	Variable : 1962, 1963 or 1964	The Hamburg Convention of 28 October 1964 made 9 years' compulsory schooling universal
Belgium	8 years	6 to 14		Gradual extension to 9 years (6 to 15) and to 10 years (6 to 16) was envisaged by the "Schools Pact" of 1958
France	10 years	6 to 16	Duration extended from 8 to 10 years from 1967 by the ordinance of 5.1.59 [2]	
Italy	8 years	6 to 14	1962	
Luxembourg	9 years	6 to 15	1963	
Netherlands	9 years	6 to 15 [3]	1950. Provision of 1 August 1971 : plus three years of part-time education [4]	Successive phases of the provision of 1 August 1971. In 1972 : one day a week for young people of 15 to 16 [5]
II. *Other industrialised countries studied*				
United States	9, 10, 11 or 12 years	6-7 to 15-18	variable	
Japan	9 years	6 to 15	1947	
United Kingdom	10 years	5 to 15	1944 or 1945	Extension to 16 envisaged in 1970-1971
Ireland	9 years	6 to 15 [6]	1972	
Sweden	9 years	7 to 16	1962	
USSR	8 years	7 to 15	1958	10 years' schooling universal in 1970

Source : UNESCO, *Statistical Year-Book*, 1967, Table 7, by Raymond Poignant.

1. Since 1964, 9 years of compulsory schooling has been in force in all the *Länder* of the Federal Republic. Under the Hamburg Convention the duration can be increased to 10 years. This increase is being applied, on an experimental basis, only by Berlin, Hamburg, Northern Westphalia and Schleswig-Holstein.
2. Owing to the time taken to establish the new school structures this extension will only take effect in about 1972 after the school building programme under the Fifth Plan (1966-70) is completed ; meanwhile exemption from compulsory schooling between the ages of 14 and 16 has been allowed, in particular for apprentices under contract.
3. Brought into line by us with the Netherlands report.
4. ibid.
5. ibid.
6. Entry permitted from 4 onwards. Data from the Irish report.

APPENDIX II

Statistical breakdown of the growth in school enrolment ratios for the 16 to 19 age group [1]

Country	Age	Enrolment rate per year		Overall % increase
		1952/1953	Last known year	1950-1967 (or 1952-1967)
FRG	15	34.5	52.6	+ 52
	17	12.6	21.0	+ 67
Belgium	14	63.7	86.8	+ 66
	17	25.9	46.7	+ 182
Italy	14	31.0	56.4	+ 82
	17	8.9	27.4	+ 208
Netherlands	14	70.4 (1950)	91.5	+ 30
	17	21.4 (1950)	43.7	+ 104
Japan	15-17	37.3 (1950)	78.1	+ 109
	15	29.3 (1950)	68.7	+ 130
	17	6.6 (1950)	17.3	+ 162
Sweden	14	55.1 (1953)	96.7	+ 75
	17	30.4 (1960) [2]	45.1	+ 48 (1960-67)
USSR	15-19	22.8	69.1	+ 205

1. Table 1, p. 49 of the roneoed report *General Secondary Education in the Year 2000*, by B. J. Hake (study for "Plan Education 2000", commissioned by the European Cultural Foundation, Amsterdam).

2. Here the table requires correction : in 1953 the rate was about 20, since it was 15.2 for the 17 to 19 age group. The percentage of increase for age 17 in 1967 was therefore 125.

APPENDIX III

Table III-7

Rate of transfer to higher education

(as a percentage of pupils holding secondary school leaving certificates)

	1950—1952	1954—1956	1959—1961	1964—1966
University-type education				
Germany	87.5	98.5	86.0	98.6
Austria	—	69.7	71.0	72.8
Belgium	—	64.5	64.4	55.8
Denmark	79.2	68.1	84.6	87.3
Finland	67.7	78.7	73.7	69.3
France	—	86.3	83.0	91.7
Greece	—	23.8	35.9	43.3
Ireland	44.9	37.1	40.1	38.0
Italy	61.1	57.8	59.4	78.1
Norway	34.8	38.4	40.5	46.7
Netherlands	44.2	55.0	62.2	67.0
United Kingdom [1]	—	81.8	69.1	60.4
Sweden	75.8	76.9	79.5	91.4
Yugoslavia	—	74.9	70.7	51.3
United States	34.9	39.4	39.4	39.0
Japan	26.2	19.1	18.3	21.2
All higher education				
Belgium	—	69.4	77.5	74.4
Greece	—	29.8	42.2	48.4
Italy	62.6	59.4	61.8	80.5
Netherlands	—	76.6	76.3	69.0
Yugoslavia	—	89.5	34.4	81.8
United States	44.0	50.3	52.0	53.6
Japan	31.2	24.3	22.9	28.2

1. Great Britain.

Source : OECD (1971), *The Development of Higher Education 1950-1967* : Analytical Report, page 108.

Table II-7

Rate of admission to higher education

Country	Age group	All university-type higher education				All higher education			
		1950	1955	1960	1965	1950	1955	1960	1965
Austria	20 to 22 years	3.7	4.0	4.8	6.3	—	—	8.0	11.7
Austria [1]	18 to 20 years	—	(4.5)	(6.6)	(8.2)	—	(4.5)	(6.6)	(8.2)
Belgium	18 to 20 years	3.5	5.1	7.5	9.6	—	11.0	18.0	21.8
Denmark	19 to 21 years	4.6	4.6	7.4	10.2	7.2	9.0	14.4	15.5
Finland	19 to 21 years	4.1	5.9	8.1	10.1	7.1	10.0	11.9	14.4
France	18 to 20 years	—	5.5	9.0	11.6	—	—	15.2	18.8
Greece	18 to 20 years	—	3.4	6.4	13.6	—	4.4	7.2	14.7
Ireland	18 to 19 years	4.0	3.9	6.5	8.7	—	—	—	—
Italy	19 to 21 years	4.7	5.5	8.0	14.3	4.8	5.7	8.3	14.8
Luxembourg	20 to 22 years	—	—	—	6.5 [2]	—	—	—	10.5 [3]
Norway	19 to 21 years	3.3	3.8	6.3	8.0	—	—	—	17.2
Netherlands	17 to 20 years	2.7	2.9	4.1	5.4	—	9.2	12.0	12.8
United Kingdom									
full-time	18 to 20 years	3.6	3.9	4.7	6.1	—	—	—	12.8
Sweden	19 to 21 years	3.8	5.4	7.6	12.6	—	8.0	9.4	15.2
Switzerland	20 to 22 years	—	—	—	7.6	—	—	—	—
Turkey	18 to 20 years	—	—	—	2.6	—	—	—	4.5
Yugoslavia	18 to 21 years								
total		(4.9)	(6.1)	(15.3)	(15.5)	(5.5)	(7.3)	(22.6)	(30.5)
full-time		—	5.0	8.5	11.8	—	5.7	11.4	18.6
Canada									
full-time	18 to 20 years	8.9	—	—	22.4	—	—	—	—
United States	18 years	19.0	25.0	27.4	28.1	23.9	31.5	35.7	38.8
Japan	18 to 19 years	6.2	7.7	8.6	13.3	7.0	9.8	10.8	17.6

1. Austrian students only.
2. 1966.
3. 1966.

Source : OECD (1971), *The Development of Higher Education 1950-1967* : Analytical Report, page 86.

APPENDIX IV

Unemployment in the 16 to 19 age group

Unfortunately, this particular social phenomenon is not covered in the country reports. We have not been able to assemble the necessary information. Although the scale differs from one country to another and although the findings would in any event be hardly comparable, because the term "unemployed" is given different administrative definitions in different countries (based on criteria such as social security, qualifying period etc.),[1] unemployment among young people has such serious psychological and social consequences that it deserves our attention.

The only data available to us are a few recent figures for Belgium, a country where full employment has been maintained for several years.

The National Labour Council has assembled a number of figures relating to unemployment by age group. These are reproduced in the following table.

Table 4 — Changes in number of wholly unemployed, male and female, in different age groups (April 1971 to April 1972)

Age group	Men				Women				Men + women			
	April		Difference		April		Difference		April		Difference	
	1971	1972	1972/1971		1971	1972	1972/1971		1971	1972	1972/1971	
			N	%			N	%			N	%
Under 20	1 238	3 071	+ 1 783	+ 138.4	1 819	2 462	+ 643	+ 35.3	3 107	5 533	+ 2 426	+ 78.0
20 to 25	2 226	4 801	+ 2 575	+ 115.6	4 993	5 746	+ 753	+ 15.0	7 219	10 547	+ 3 328	+ 46.1
25 to 40	4 375	8 615	+ 4 240	+ 96.9	6 700	8 229	+ 1 529	+ 22.8	11 075	16 844	+ 5 769	+ 52.0
40 to 50	6 298	8 472	+ 2 174	+ 34.5	5 933	6 704	+ 771	+ 12.9	12 231	15 176	+ 2 945	+ 24.0
50 and over	26 173	27 722	+ 1 549	+ 5.9	8 240	8 727	+ 487	+ 5.9	34 413	36 449	+ 2 036	+ 5.9
Total	40 360	52 681	+ 12 321	+ 30.5	27 685	31 868	+ 4 183	+ 15.1	68 045	84 549	+ 16 504	+ 24.2

Table 5 — Share of different age groups in total number of wholly unemployed (April 1971 to April 1972)

Age group	April 1971			April 1972		
	Men %	Women %	Men + women %	Men %	Women %	Men + women %
Under 20	3.2	6.6	4.5	5.8	7.7	6.6
20 to 25	5.5	18.0	10.6	9.1	18.0	12.5
25 to 40	10.8	24.2	16.3	16.4	25.8	19.9
40 to 50	15.6	21.4	18.0	16.1	21.1	17.9
50 and over	64.9	29.8	50.6	52.6	27.4	43.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

1. In some countries, young people under a specified age or who have never worked may not be registered as unemployed even though they are not actually at work.

Table 6 — Percentage of unemployed persons of normal, less than average and very low capacity in the total number of wholly unemployed receiving benefit in a particular age group (April 1971 to April 1972)

Age group	Total	Normal capacity	Less than average capacity	Very low capacity
April 1972				
Under 20	100.0 %	89.7 %	8.8 %	1.5 %
20 to 40	100.0 %	76.1 %	16.3 %	7.6 %
40 to 50	100.0 %	43.9 %	28.4 %	27.7 %
50 and over	100.0 %	15.9 %	35.7 %	46.4 %
April 1971				
Under 20	100.0 %	85.0 %	12.2 %	2.8 %
20 to 40	100.0 %	67.9 %	20.8 %	11.3 %
40 to 50	100.0 %	34.2 %	33.5 %	32.3 %
50 and over	100.0 %	11.1 %	37.4 %	51.5 %

For our present purposes, of course, we are concerned only with unemployed people under the age of 20.

The tables indicate that unemployment in this group is clearly tending to rise faster than the levels of the wholly unemployed—the increase is 78 % for young men and girls (and 138 % for young men alone)—whereas the total rise is 24.2 % over one year. Unemployed young people, male and female together, account for 6.6 % of the total for the wholly unemployed, and it is important to note that this percentage is markedly lower than in the successive five-year age groups. Table 6 indicates that more than 85 % of unemployed young people have a normal capacity for work ; this percentage falls very steeply with increasing age.

These isolated data do not, of course, allow of any clear-cut conclusions, but they do suggest that unemployment among young people is likely to result from the lack of opportunities offered to them in economic life rather than from lack of capacity for work. The fact that in April 1972, 5 533 young people out of 84 549 unemployed, i.e. 6.6 % of the total figure for the wholly unemployed figure, were registered as unemployed, is serious enough in itself. Essentially, of course, this is unemployment of a temporary kind, but the fact that a young person can take such a long time to find a job that he is officially registered as unemployed calls for remedial action. The picture in Belgium is surely not unique.

APPENDIX V

Table 7

Relative chances of upper-stratum and lower-stratum youth studying in a university [1]

Country	Year	Upper stratum / Lower stratum
Austria	1965-66	40 : 1
Belgium	1962-63	7 : 1
	1966-67	8 : 1
Denmark	1964-65	16 : 1
France	1959-60	84 : 1
	1964-65	30 : 1
Germany	1952-53	82 : 1
	1958-59	61 : 1
	1961-62	58 : 1
	1964-65	48 : 1
Greece	1959-60	8 : 1
	1963-64	8 : 1
Ireland	1961	20 : 1
Italy	1953-54	44 : 1
	1960-61	36 : 1
	1964-65	34 : 1
Japan	1962	20 : 1
	1961	30 : 1
	1964-65	65 : 1
Netherlands	1958-59	73 : 1
	1961-62	56 : 1
	1964-65	45 : 1
Norway	1964-65	7 : 1
Portugal	1963-64	129 : 1
Spain	1956-57	173 : 1
	1958-59	91 : 1
	1962-63	87 : 1
Sweden	1960-61	26 : 1
Switzerland	1959-60	23 : 1
United Kingdom	1961-62	8 : 1
United States	1958	5 : 1
Yugoslavia	1951-52	7 : 1
	1957-58	5 : 1
	1960-61	6 : 1
	1965-66	4 : 1

1. *Group disparities in educational participation and achievement*, OECD, 1971, 318 p. Table D, p. 66.

It should be noted that, with time, opportunities have significantly improved in the industrialised countries, especially where the difference was previously very strong... However, *in all cases, and despite the fact that the situation varies considerably from country to country,* the coefficients are striking, going from 4 (Yugoslavia) to 129 (Portugal).

APPENDIX VI

The educational and cultural district

B. Schwartz, in a remarkable (and as yet unpublished) paper in the framework of "Plan Education 2000" as devised by the *European Cultural Foundation* in Amsterdam, describes his idea of the educational district in the following terms. [1]

"Let us now take a closer look at this unit, this flexible, integrated set of educational services which I have called an educational and cultural *district*.

It will act as the groundwork of the educational service, offering the whole population within the geographical area which it serves the entire range of educational and cultural opportunities covered by compulsory schooling and further education (with the exception, however, of university courses proper).

It will provide pre-school education, common curricula and alternative courses in basic education (for children between the ages of 6 and 16) and all forms of education and training between the end of basic schooling and entry into active life or admission to a university.

The district will also provide as wide a range as possible of courses of further training for people already at work, with due regard to the main local economic activities, the resources of nearby universities and the specific requirements of the public.

At all levels it will offer its users a comprehensive arsenal of facilities and an organisational set-up in which the user can become involved and whose activities he can help to influence.

The *size of the district* must meet two requirements. It must be large enough to offer its users the widest possible choice ; for the material facilities and specialists needed to cover each option will be economically justifiable only if the population served is large enough. It must not, however, be so large as to hamper direct contact between its management and users.

It would probably be best to think in terms of a district with a population of 50 000, which would correspond, roughly speaking, to an enrolment figure of 17 000 to 18 000 full-time users each year.

Our calculations assume :

— the development of pre-school education from the age of 2 onwards ;

— compulsory schooling up to the age of 18 ;

— the general implementation of a system whereby one year's educational leave would be granted every ten years ;

— widespread development of part-time courses which, for the purposes of the calculation, are converted into full-time units.

Such a calculation is necessarily theoretical, of course, and the size of districts will vary greatly in accordance with socio-economic factors, population and geography. Communications problems will probably lead to forming districts which are incomplete or provide only some of the services desirable, unless residential facilities in educational centres and travel facilities are greatly improved.

The district will provide *a permanent guidance and counselling service*. Specialist sections will be responsible for guidance at school and in the course of employment.

In the proposed system, it will be remembered, guidance and counselling for young people at school is not in the hands of an administrative service to be consulted only in case of difficulties. All the teachers and instructors are involved in the guidance process in their daily work, through tutors and with the assistance of counsellors.

All young people's files are processed statistically by the guidance service, which is itself responsible for the permanent further training of the tutors. The same applies to adult students, who will have their own special system of tutors to guide them through the vicissitudes of their cultural, social and professional lives.

However, this guidance service, whether for young students or for adult students, will operate under the supervision of groups of users who, as we shall see later, will be represented on the district administrative and development councils.

All the training possibilities afforded by activities in the area will be catalogued and kept up to date ; these will include visits to companies and administrative agencies, exploration of the natural environment, cultural events, the resources of museums, archives and repositories etc. The district authorities will facilitate and take responsibility for the organisation of school exchanges.

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1. "Permanent education in the year 2000" (roneoed document), Chapter IX : "The educational and cultural district", pages 162 to 172.

Where sport is concerned, the district will ensure that existing facilities are used to the full and will organise matches with teams outside the area.

While the district is not responsible for devising curricula, it may nevertheless prepare its own material when its needs cannot be met elsewhere.

It will also be constantly at work to adapt and illustrate typical curricula, taking full advantage of the resources available in the locality.

The district must be equipped with one or more mass media production units—a printing press, poster workshop, film and TV studio and the teams of technicians needed to run them ; these units will be available to the public to meet its needs in the way of information, education and leisure. Production and distribution will not be left entirely to 'specialists' ; but they will be available to teachers and instructors and to pupils too (both young people and adults), so that teams may be built up enabling everyone to participate for some time in the preparation of material."

This media production, which will cover the whole range of needs from highly structured, "programmed" educational material to pure entertainment, occupies a central place in the district's activities as a means whereby individuals and groups can express their views and reach their audience. In addition, production in this sense, accompanied with a number of feedback circuits, will constitute a powerful driving force in the district's social life, replacing the long one-way circuit (producer—consumer) of the traditional mass media by a multitude of short two-way circuits which will make communication an active process involving all the people concerned.